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A

TREATISE

ON

THE VENEREAL DISEASE.

By JOHN HUNTER.

SECOND EDITION.

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SIR GEORGE BAKER, BART.

PHYSICIAN TO HER MAJESTY,

PRESIDENT OF THE COLLEGE OF PHYSICIANS,

AND

FELLOW OF THE ROYAL SOCIETY,

THIS WORK

IS INSCRIBED

AS A MARK OF ESTEEM,

BY HIS FRIEND, AND

HUMBLE SERVANT,

JOHN HUNTER.

LEICESTER-SQUARE,
MARCH 30, 1786.

TO

SIR GEORGE BAKER, Bart.

PHYSICIAN TO HER MAJESTY,

PRESIDENT OF THE COLLEGE OF PHYSICIANS,

&c. &c. &c.

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INTRODUCTION.

TWO motives have induced me to publiſh the following treatiſe. In the firſt place, I am not without hope, that ſeveral new obſervations, contained in it, will be deemed worthy of the public attention; in the next place, I am deſirous to have an opportunity of ſhewing from whom ſome opinions, that have made their way into the medical world, originated.

But, as much of the theory, which will often be referred to in the courſe of this work, is peculiar to myſelf, it ſeems neceſſary to give an introductory explanation of ſome parts of it, in order that the terms uſed may be the more intelligible to the reader.

I. OF SYMPATHY.

I divide ſympathy into two kinds; *univerſal*, and *partial*.

Univerſal ſympathy is, an affection wherein the whole conſtitution ſympathiſes with ſome ſenſation or action. Partial ſympathy is, an affection wherein one or more diſtinct parts ſympathiſe with ſome local ſenſation, or action

The univerſal ſympathies are different in different diſeaſes; but thoſe that occur in the venereal diſeaſe are principally two; the ſymptomatic fever, and the hectic fever. The ſymptomatic fever is an immediate effect of ſome local injury, and ſeldom takes place in the venereal diſeaſe in any great degree under any of its forms, except in the caſe of a ſwelled teſticle, which is itſelf an inſtance of a partial ſympathy; the ſymptomatic fever here, therefore, is an univerſal ſympathy ariſing from a partial one. The hectic fever is an univerſal ſympathy with a local diſeaſe, which the conſtitution is not able to overcome. This takes place oftener and in a greater degree in the lues venerea than in any other form of the diſeaſe.

I divide partial ſympathy into three kinds; the *remote*, the *contiguous*, and the *continuous*. The remote is, where there appears to be no viſible connection of parts from whence we can account for ſuch effects, as in the caſe of pain of the ſhoulder in an inflammation of the liver. The contiguous is, that which appears to have no other connection than what ariſes from vicinity or contact of ſeparate parts; an inſtance of which we have in the ſtomach and inteſtines ſympathiſing with the integuments of the abdomen. The continuous is, where there is no interruption of parts, and the ſympathy runs along from the irritating point, as from a centre, which is the moſt common of all ſympathies. We have an example of this in the ſpreading of inflammation.

II. OF MORBID ACTIONS BEING INCOMPATIBLE WITH EACH OTHER.

The venereal diſeaſe is not only ſuſpected to be preſent in many caſes where the nature of the diſorder is not well marked, but it is ſuppoſed that it can be combined with other diſeaſes, ſuch as the itch and the ſcurvy. Thus we hear of pocky itch, and of ſcurvy and the venereal diſeaſe combined; but this ſuppoſition appears to me to be founded in error. I have never ſeen any ſuch caſes, nor do they ſeem to be conſiſtent with the principles of morbid action in the animal œconomy. It appears to me, beyond a doubt, that no two actions can take place in the ſame conſtitution, or in the ſame part, at one and the ſame time. No two different fevers can exiſt in the ſame conſtitution; nor two local diſeaſes in the ſame part at the ſame time; yet as the venereal diſeaſe, when it attacks the ſkin, bears a reſemblance to thoſe ſymptoms which are vulgarly called ſcorbutic, they are often ſuppoſed to be mixed and to exiſt in the ſame part.

What has been called a ſcorbutic conſtitution, is no more than a conſtitution very ſuſceptible of an action producing eruptions on the ſkin, whenever an immediate cauſe takes place; and there are ſome parts of the body more ſuſceptible of this than others, in which, therefore, a ſlighter immediate cauſe is ſufficient to excite the action; but the eaſy ſuſceptibility, with

with reſpect to one diſeaſe, is not a reaſon why a conſtitution ſhould not likewiſe be ſuſceptible of other diſeaſes. A man may have the pox and the ſmallpox at the ſame time; that is, parts of his body may have been contaminated by the venereal poiſon, and the ſmallpox may take place, and both diſeaſes may appear together, but not in the ſame parts. If both were conſequences of fever, and each followed the fever nearly about the ſame time, it would be impoſſible for each to have its reſpective eruption, even in different parts, at the ſame time; two fevers, antecedent to theſe different diſeaſes, cannot be co-exiſtent.

From this principle, I think I may fairly put the following queries. Does not the failure of inoculation, and the power of reſiſting many infections, ſometimes ariſe from the perſon's having, at the ſame time, ſome other diſeaſe, and therefore being incapable of a new action? Does not the great difference in the time, from the application of the cauſe, to the appearance of the effect, in many caſes, depend upon the ſame principle? It has been ſometimes obſerved, that the puncture in the arm has ſhewn no ſign of inflammation in fourteen days after the application of the variolous poiſon. Has there not been another diſeaſe in the conſtitution at the time of inoculation? Does not the cure of ſome diſeaſes depend upon the ſame principle? The ſuſpenſion, or cure of a gonorrhœa by a fever may be an inſtance of this.

Let me illuſtrate this principle ſtill further, by one of many caſes which have come under my own obſervation. On Thurſday, the ſixteenth of March, one thouſand ſeven hundred and ſeventy-five, I inoculated a gentleman's child; in whoſe arms it was obſerved I made large punctures. On the Sunday following, he appeared to have received the infection; a ſmall inflammation or redneſs appearing round each puncture, and a ſmall tumour above the ſurface of the ſkin having been obſerved. On the twentieth, and the twenty-firſt, the child was feveriſh; but I declared that the fever was not variolous, as the inflammation had not at all advanced ſince the nineteenth. On the twenty-ſecond, a conſiderable eruption appeared, which was evidently the meaſles: upon this the ſores on the arms appeared to go back, becoming leſs inflamed. On the twenty-third, he was very full of the meaſles; the punctures on the arms being in the ſame ſtate as on the

preceding day. On the twenty-fifth, the meaſles began to diſappear. On the twenty-ſixth, and twenty-ſeventh, the punctures began again to look a little red. On the twenty-ninth, the inflammation increaſed, and there was a little matter formed. On the thirtieth, he was ſeized with fever. The ſmall pox appeared at the regular time, went through its uſual courſe, and terminated favourably. In like manner it may be obſerved, that the venereal diſeaſe makes its appearance at different periods after infection. Is not this explicable on the ſame principle?

III. OF THE COMPARATIVE POWERS OF DIFFERENT PARTS OF THE BODY—FROM SITUATION—FROM STRUCTURE.

We ſhall have occaſion to obſerve, that the parts affected aſſume the morbid action more readily, and continue it more rapidly, when near to the ſource of the circulation than when far from it; for the heart exerts its influence upon the different parts of the body, in proportion to their vicinity to it; and the more diſtant that the parts are, the weaker are their powers.

This is, perhaps, better illuſtrated by diſeaſe than by any actions in health; for in health we have no comparative trials, as no two parts of the machine, at unequal diſtances from the heart, can be thrown into equal action, and therefore no concluſions can be drawn. It may be obſerved, that all the vital parts are near the heart.

In diſeaſes we ſee mortification, ariſing from debility, in the extremities oftener than in other parts, more eſpecially if the perſon is tall; the heart not propelling the blood to theſe diſtant parts with equal force. In ſuch a ſtate of conſtitution, thoſe who labour under a hemiplegia, are often found to die at laſt, from a mortification in the extremities of the paralytic ſide. In ſome of theſe caſes, the arteries give way, and allow of an extravaſation of the blood, and therefore we may reaſonably ſuppoſe, that they are proportionally weak in health. We alſo find, that ſuch extravaſation commonly begins in the extremities. This principle is not only evident in theſe two diſeaſes, but alſo in every diſeaſe that can affect an animal body. It appears in the readineſs with which diſeaſes come on, and proceed in parts diſtant from the ſource of the circulation, and alſo in the ſteps towards a cure.

Parts

Parts differ not only in their powers, in proportion as they are nearer or further from the heart, but likewiſe according to their peculiar ſtructure, whereby they vary as much in the progreſs of morbid actions as in the operations of health.

An animal body is compoſed of a variety of ſubſtances, as muſcle, tendon, cellular membrane, ligament, bone, nerve, &c. We have therefore an opportunity of obſerving the comparative progreſs of diſeaſes in them, and their comparative powers of performing a cure; and we find that they differ very much from one another in thoſe reſpects. How far theſe differences take place in all diſeaſes, I have not been able to determine; but ſhould ſuppoſe, that in ſpecific diſeaſes, as ſcrofula and cancer, there is in general no difference in the mode of action in any of the ſtructures*, theſe diſeaſes producing the ſame ſpecific effects in all the parts that are capable of being affected by them; but in diſeaſes ariſing from accident, a great difference in the degrees of action takes place; the parts from ſuch a cauſe being allowed to act according to their natures; which obſervation holds good alſo in the venereal diſeaſe. This difference appears to be chiefly in the degrees of ſtrength and weakneſs in reſiſting morbid action. The leſs the natural powers of action are in any particular ſtructure of parts, the leſs they are able to reſiſt diſeaſe; therefore bone, tendon, ligament, and cellular membrane, go through their morbid actions more ſlowly than muſcle or ſkin; and this principle is applicable to the venereal diſeaſe.

IV. OF PARTS SUSCEPTIBLE OF PARTICULAR DISEASES.

THERE are ſome parts much more ſuſceptible of ſpecific diſeaſes than others. Poiſons take their different ſeats in the body as if allotted for them. Thus we have the ſkin attacked with what are vulgarly called ſcorbutic eruptions, and many other diſeaſes; it is alſo the ſeat of the ſmallpox and

* Here it is to be underſtood, that we do not include thoſe parts which have a greater tendency to ſpecific diſeaſes than what many others have; as the lymphatics to the ſcrofula, the breaſt to the cancer.

the

the meaſles; the throat is the ſeat of the hydrophobia and the hooping-cough. The ſcrofula attacks the abſorbent ſyſtem, eſpecially the glands. The breaſts, teſticles, and the conglomerate glands, are the ſeat of cancer. The ſkin, throat, and noſe, are more readily affected by the lues venerea than the bones and perioſteum, which, on the other hand, ſuffer ſooner than many other parts, particularly the vital parts, which perhaps are not at all ſuſceptible of the diſeaſe.

V. OF INFLAMMATION.

I conſider common inflammation to be an increaſed action of the ſmaller veſſels of a part, joined with a peculiar mode of action, by which they are enabled to produce the following effects; to unite parts of the body to each other; to form pus; and to remove parts of the ſolids. Theſe effects are not produced by a ſimple increaſe of action or enlargement of the veſſels, but by a peculiar action, which is at preſent perhaps not underſtood.

Theſe three effects of inflammation I have called, diſtinct ſpecies of inflammation. That which unites parts I have called, the *adheſive inflammation*; that which form pus, *the ſuppurative inflammation*; and that which removes parts, the *ulcerative inflammation*.

In the adheſive inflammation the arteries throw out coagulable lymph, which becomes the bond of union. This however is not ſimply extravaſated but has undergone ſame change before it leaves the arteries, ſince in inflamed veins it is found lying coagulated upon the internal ſurface of the veſſel, which could not have happened if ſimply extravaſated. In the ſuppurative inflammation a ſtill greater change is produced upon the blood before it is thrown out by the arteries, whereby it is formed into pus; which change is probably ſimilar to ſecretion. In the ulcerative inflammation, the action of the arteries does not remove the parts; that office is performed by the abſorbent veſſels which are brought into action.

In the two firſt ſpecies of inflammation there muſt be a change in the diſpoſition and mode of action of the arteries; for the ſuppurative ſpecies cannot be conſidered as ſimply an increaſe of the action of the adheſive, as its

its effects are totally different; but in the third ſpecies there is probably no change of action in the arteries from that of the ſecond; the action only of the abſorbents being ſuperadded, by which ſolid parts, and of courſe the arteries, themſelves are removed.

VI. OF MORTIFICATION.

MORTIFICATIONS are of two kinds, one preceded by inflammation, the other not; but as the caſes of mortifications, which will be mentioned in this work, are all of the firſt kind, I ſhall confine my obſervations to that ſpecies.

I conſider inflammation as an increaſed action of that power which a part is naturally in poſſeſſion of. This increaſed action, in healthy inflammations at leaſt, is probably attended with an increaſe of power: but in inflammations, which terminate in mortification, there is no increaſe of power. On the contrary, there is a diminution of power, which, joined to an increaſed action, becomes the cauſe of mortification, by deſtroying the balance which ought to ſubſiſt between the power and action of every part.

If this account of mortifications be juſt, we ſhall find it no difficult matter to eſtabliſh a rational practice; but before we attempt this, let us juſt take a view of the treatment hitherto recommended, and ſee how far it agrees with our theory.

It is plain from the common practice, that the weakneſs has been attended to; but it is as plain, that the increaſed action has been overlooked; and therefore the whole aim has been to increaſe the action with a view to remove the weakneſs. The Peruvian bark, confectio cardiaca, ſerpentaria, &c. have been given in as large quantities as the caſe appeared to require, or the conſtitution could bear; by which means an artificial or temporary appearance of ſtrength has been produced, while it was only an increaſed action. The cordials and wine, upon the principle on which they have been given, are rationally adminiſtered; but there are ſtrong reaſons for not recommending them, ariſing from the general effect which all cordials have of increaſing the action without giving real ſtrength; and the powers of the body are afterwards

wards ſunk proportionally as they have been raiſed; by which nothing can be gained, but a great deal may be loſt; for in all caſes, if the powers are allowed to ſink below a certain point, they are irrecoverable.

The local treatment has been as abſurd as the conſtitutional. Scarifications have been made quite to the living parts, that ſtimulating and antiſceptic medicines might be applied to them, ſuch as turpentines, the warmer balſams, and ſometimes the eſſential oils. Warm fomentations have been alſo applied as congenial to life; but warmth always increaſes action, and ſtimulants are improper where the actions are already too violent.

Upon the principles here laid down, the bark is the only medicine that can be depended upon, as it increaſes the powers and leſſens the action. Upon many occaſions opium will be of ſingular ſervice by leſſening the action, although it does not give real ſtrength. I have ſeen good effects from it, both when given internally in large doſes, and when applied to the part. To keep the parts cool is proper; and all the applications ſhould be cold. The abovementioned practice is to be kept in view in mortifications that happen in the venereal diſeaſe.

PART

PART I.

CHAPTER I.

OF THE VENEREAL POISON.

THE Venereal Diſeaſe ariſes from a poiſon; which, as it is produced by diſeaſe, and is capable of again producing a ſimilar diſeaſe, I call a morbid poiſon, to diſtinguiſh it from the other poiſons, animal, vegetable, and mineral.

The morbid poiſons are many, and they have different powers of contamination. Thoſe, which infect the body, either locally or conſtitutionally, but not in both ways, I call *ſimple*. Thoſe, which are capable of affecting the body, both locally and conſtitutionally, I call *compound*. The venereal poiſon, when applied to the human body, poſſeſſes a power of propagating or multiplying itſelf; and as it is alſo capable of acting both locally and conſtitutionally, it is a compound morbid poiſon. Like all ſuch poiſons, it may be communicated to others in all the various ways in which it can be received, producing the ſame diſeaſe in ſome one of its forms.

I. OF THE FIRST ORIGIN OF THE POISON.

THOUGH the firſt appearance of this poiſon is certainly within the period of modern hiſtory, yet the preciſe time and manner of its origin has hitherto eſcaped our inveſtigation; and we are ſtill in doubt, whether it aroſe in Europe, or was imported from America. I ſhall not attempt to diſcuſs this queſtion; and thoſe who wiſh to examine at length the facts, authorities and arguments brought in favour of the latter opinion, may conſult Aſtruc; and for the

former a ſhort treatiſe* publiſhed in one thouſand ſeven hundred and fifty-one, without a name. The author of this treatiſe appears to have conſidered the ſubject very fully, and as far as reaſoning goes on a ſubject of this kind, proves that the diſeaſe was not brought from the Weſt-Indies. Not contented with this, he goes on to account for its firſt riſe in Europe: but in this he is not equally ſucceſsful. The ſubject is a difficult one; and the want of a ſufficient number of facts leaves too much room for conjecture.

We ſhall not therefore enter further into this queſtion; nor is it material to know at what period, and in what country, this diſeaſe aroſe; but we may in general affirm, that as animals are not naturally formed with diſeaſe, or ſo as to run ſpontaneouſly into morbid actions; but with a ſuſceptibility of ſuch impreſſions as produce ſuch actions, diſeaſes muſt always ariſe from impreſſions made upon the body: and as man is probably ſuſceptible of more impreſſions, that become the immediate cauſe of diſeaſe, than any other animal, and is beſides the only animal which can be ſaid to form artificial impreſſions upon himſelf, he is ſubject to the greateſt variety of diſeaſes. In one of thoſe ſelf-formed ſituations, therefore, the impreſſion moſt probably was given, which produced the venereal diſeaſe.

II. IT BEGAN IN THE HUMAN RACE, AND IN THE PARTS OF GENERATION.

In whatever manner it aroſe, it certainly began in the human race; as we know no other animal that is capable of being infected with this poiſon. It is probable too, that the parts of generation were the firſt affected: for, if it had taken place in any other part of the body, it might probably never have gone further than the perſon in whom it firſt aroſe; and therefore never have been known; but, being ſeated in the parts of generation, where the only natural connection takes place between one human being and another, except that between the mother and child, it was in the moſt favourable

* Intitled, "A Diſſertation on the Origin of the Venereal Diſeaſe; proving that it was not brought from America, but began in Europe from an epidemical Diſtemper. Tranſlated from the original Manuſcript of an eminent Phyſician. London, printed for Robert Griffiths, 1751."

ſituation

ſituation for being propagated: and, as we ſhall find hereafter in the hiſtory of the diſeaſe itſelf, that no conſtitutional effect of this poiſon can be communicated to others, we are led of neceſſity to conclude that its firſt effects were local.

III. OF THE NATURE OF THE POISON.

We know nothing of the poiſon itſelf, but only its effects on the human body. It is commonly in the form of pus, or united with pus, or ſome ſuch ſecretion, and produces a ſimilar matter in others, which ſhows that it is moſt generally, although not neceſſarily, a conſequence of inflammation. It produces, or excites therefore, in moſt caſes, an inflammation in the parts contaminated; beſides which inflammation, the parts ſo contaminated have a peculiar mode of action ſuperadded, different from all other actions attending inflammation; and it is this ſpecific mode of action which produces the ſpecific quality in the matter. It is not neceſſary, that inflammation ſhould be preſent to keep up this peculiar mode of action, becauſe the poiſon continues to be formed long after all ſigns of inflammation have ceaſed. This appears from the following facts: men having only what is called a gleet or healing chancre, give the diſeaſe to ſound women: and many venereal gonorrhœas happen without any viſible ſigns of inflammation.

In women the inflammation is frequently very ſlight, and often there is not the leaſt ſign of it; for they have been known to infect men though they themſelves have had no ſymptoms of inflammation, or of the diſeaſe in any form. Therefore the inflammation and ſuppuration, when preſent, are only attendants on the peculiar mode of action; the degree in which they take place depending more on the nature of the conſtitution than on that of the poiſon.

The formation of matter alſo, though a very general, is not a conſtant attendant on this diſeaſe; for we ſometimes find inflammation produced by the venereal poiſon, which does not terminate in ſuppuration; ſuch inflammation I ſuſpect to be of the eryſipelatous kind. It is the matter produced, whether with or without inflammation, which alone contains the poiſon;

for without the formation of matter, no venereal poiſon can exiſt. Therefore a perſon, having the venereal irritation in any form not attended with a diſcharge, cannot communicate the diſeaſe to another. To communicate the diſeaſe therefore it is neceſſary that the venereal action ſhould firſt take place; that matter ſhould be formed in conſequence of that action; and that the matter ſhould be applied to a ſound perſon or part.

That the venereal diſeaſe is to be propagated only by matter is proved every day by a thouſand inſtances. Married men contract the diſeaſe, and not ſuſpecting that they have caught it, cohabit with their wives, even for weeks. Upon diſcovering ſymptoms of the diſeaſe, they of courſe deſiſt; yet in all my practice I never once found, that the complaint was communicated under ſuch circumſtances, except where they had not been very attentive to the ſymptoms, and therefore continued the connection after the diſcharge had appeared. I have gone ſo far as to allow huſbands, while infected, but before the appearance of diſcharge, to cohabit with their wives in order to ſave appearances, and always with ſafety. I could carry this ſtill further, and even allow a man, who has a gonorrhœa, to have connection with a ſound woman, provided that great care be taken to clear all the parts of any matter, by firſt ſyringing the urethra; making water; and waſhing the glans.

The matter, which is impregnated with this poiſon, when it comes in contact with a living part, irritates that part, and inflammation is the common conſequence. It muſt be applied either in a fluid ſtate, or rendered fluid by the juices of the part to which it is applied. There is no inſtance where it has given the infection in the form of vapor, as is the caſe in many other poiſons.

IV. OF THE GREATER OR LESS ACRIMONY OF THE POISON.

Venereal matter muſt in all caſes be the ſame; one quantity of matter cannot have a greater degree of poiſonous quality than another; and, if there is any difference, it is only in its being more or leſs diluted, which produces no difference in its effects. One can conceive, however, that it may be ſo far diluted as not to have the power of irritation. Thus any fluid taken into

into the mouth, capable of ſtimulating the nerves to taſte, may be ſo diluted as not to be taſted. But if the poiſon can irritate the part, to which it is applied, to action, it is all that is required; the action will be the ſame, whether from a large or ſmall quantity, from a ſtrong or a weak ſolution.

We find from experience, that there is no difference in the kind of matter; and no variation can ariſe in the diſeaſe from the matter's being of different degrees of ſtrength; for it appears, that the ſame matter affects very differently different people. Two men having been connected with one woman, and both catching the diſeaſe, one of them ſhall have a violent gonorrhœa or chancre, while the other ſhall have merely a ſlight gonorrhœa. I have known one man give the diſeaſe to different women, and ſome of the women have had it very ſeverely, while in others it has been very ſlight. The ſame reaſoning holds good with regard to chancres. The variations of the ſymptoms in different perſons depend upon the conſtitution and habit of the patient at the time. What happens in the inoculation of the ſmallpox ſtrengthens this opinion. Let the ſymptoms of the patient, from whom the matter is taken, be good or bad; let it be from one, who has had a great many pluſtules, or from one, who has had but few; let it be from the confluent or diſtinct kind; applied in a large quantity or a ſmall one; it produces always the ſame effect. This could only be known by the great numbers that have been inoculated under all theſe different circumſtances.

V. OF THE POISON BEING THE SAME IN GONORRHŒA AND IN CHANCRE.

It has been ſuppoſed by many, that the gonorrhœa and the chancre ariſe from two diſtinct poiſons; and their opinion ſeems to have ſome foundation, when we conſider only the different appearances of the two ſymptoms, and the different methods of cure; which, with reſpect to the nature of many diſeaſes, is too often all we have to lead our judgment. Yet, if we take up this queſtion upon other grounds, and alſo have recourſe to experiments, the reſult of which we can abſolutely depend upon, we ſhall find this notion to be erroneous.

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If we attend to the manner in which the venereal poiſon was communicated to the inhabitants of the iſlands of the South-Seas, there are many circumſtances which tend to throw light upon the preſent queſtion. It has been ſuppoſed, as no mention is made of a gonorrhœa at Otaheite, that it muſt have been the chancre that was firſt introduced into that iſland; and that of courſe nothing but a chancre could be propagated there; for as no gonorrhœa had been communicated, no ſuch diſeaſe could take place. But if we were to reaſon upon all the probable circumſtances, attending the voyages to that part of the world, we ſhould conclude the contrary; for it was almoſt impoſſible to carry a chancre ſo long a voyage without its deſtroying the penis; while we know from experience, that a gonorrhœa may continue for a great length of time. It is mentioned in Cook's voyage, that the people of Otaheite, who had this diſeaſe, went into the country and were cured; but when it became a pox, it was then incurable. This ſhows, that the diſeaſe, which they had, muſt have been a gonorrhœa; for we know that it is only a gonorrhœa that can be cured by ſimple means: and further, if it had been a chancre, and they had been acquainted with the means of curing it, they could alſo have cured the lues venerea.

Wallis left Plymouth in Auguſt 1766, and arrived at Otaheite in July 1767, eleven months after his embarkation; and if none of his men had the diſeaſe when he ſailed, there was hardly a poſſibility of their contracting it any where afterwards in the voyage. This appears to be too long for a gonorrhœa to laſt. But let us ſuppoſe even that Wallis carried it thither in his ſhip, one or two of his crew having the diſeaſe. As he ſtaid there five weeks, it was very poſſible, even very probable, that ſuch perſon or perſons might have communicated it ſo quickly as to have become the cauſe of contamination of the whole crew of his ſhip; but as this did not happen, it is a preſumptive proof that Wallis did not carry it thither.

Bougainville left France in December 1766; but he touched at ſeveral places where ſome of his people might have got the diſeaſe. The laſt of which place was Rio de la Plata, which he left in November 1767, and arrived at Otaheite in April 1768, five months after. This interval of time agrees better with the uſual continuance of the diſeaſe, than the length of Wallis's voyage, and therefore from this circumſtance it becomes more probable,

probable, that Bougainville carried it thither. Beſides, it is likely that he could guard his people leſs againſt the diſeaſe than Wallis; for Wallis could have his choice of men at his firſt ſetting out, which was all that was neceſſary to prevent his carrying the diſeaſe with him, for he ran no riſk of contracting it afterwards: but although Bougainville had the ſame advantage at firſt, yet he had it not afterwards, for his men were in the way of infection in ſeveral places, and he had no opportunity of changing them, and probably no great chance of having them cured. The circumſtance of the diſeaſe being found by Bougainville at Otaheite ſoon after his arrival, is a kind of proof that he carried it thither himſelf; for I obſerved before, that if Wallis had carried it by one man only, this man could in a very few days have ſo far propagated it, as to have ſpread it through the whole ſhip's crew; and as Bougainville arrived at the iſland ten months after Wallis, there was a ſufficient time for the inhabitants of the whole iſland to have been infected, and the ravages of the diſeaſe muſt have been evident to them immediately upon their arrival. Bougainville remained only nine days at the iſland of Otaheite, and obſerved nothing of the diſeaſe till ſome weeks after his departure, when it was found that ſeveral of the crew were infected, which moſt probably muſt have happened in conſequence of the poiſon being carried there by ſome of his own people. It is alſo mentioned by Cook, that the Otaheiteans aſcribed the introduction of the diſeaſe to Bougainville; and we can hardly ſuppoſe that they would be ſo complaiſant to our countrymen as to accuſe Bougainville, when they muſt have known whether the diſeaſe was imported by Wallis or not, eſpecially as they had no reaſon to be partial in favour of the people who accompanied the latter. But as we find in Cook's laſt voyage, that the diſeaſe in every form is now there, and as we have no new intelligence of a gonorrhœa being ſince introduced, we muſt ſuppoſe that every form of the diſeaſe has been propagated from one root, which moſt probably was a gonorrhœa.

If any doubt ſtill remain with reſpect to the two diſeaſes being of the ſame nature, it will be removed by conſidering that the matter produced in both is of the ſame kind, and has the ſame properties; the proofs of which are, that the matter of a gonorrhœa will produce either a gonorrhœa, a chancre,

or the lues venerea; and the matter of a chancre will alſo produce either a gonorrhœa, a chancre, or the lues venerea.

The following caſe is an inſtance of a gonorrhœa producing a lues venerea. A gentleman twice contracted a gonorrhœa, of which he was cured both times without mercury. About two months after each, he had ſymptoms of the lues venerea; thoſe in conſequence of the firſt infection were ulcers in the throat, which were removed by the external application of mercury; the ſymptoms, in conſequence of the ſecond, were blotches on the ſkin, for which alſo he uſed the mercurial ointment, and was cured. With regard to the lues venerea proceeding from chancres, inſtances occur ſo frequently to every one's obſervation, as to require no further proof here.

Since then it appears, that the gonorrhœa and chancre are the effects of the ſame poiſon, it may be worthy of inquiry, to what circumſtances two ſuch different forms of the diſeaſe are owing.

To account for theſe two very different effects of the ſame poiſon, it is only neceſſary to obſerve the difference in the mode of action of the parts affected when irritated, let the irritation be what it may. The gonorrhœa always proceeds from a ſecreting ſurface*, and the chancre is formed on a non-ſecreting ſurface; and in this laſt the part, to which the poiſon is applied, muſt become a ſecreting ſurface before matter can be produced. All ſecreting ſurfaces in the body being probably ſimilar, one mode of application only is neceſſary to produce this diſeaſe in them all, which is by the poiſonous matter ſimply coming in contact with them. But to produce the chancre, the venereal matter may be applied in three different ways; the firſt and moſt certain is by a wound, into which it may be introduced; the ſecond is by applying the matter to a ſurface with a cuticle, and the thinner that is it allows the matter to come more readily to the cutis; and the third is by applying the matter to a common ſore already formed.

* By *ſecreting ſurfaces* I mean all the paſſages for extraneous matter, including alſo the ducts of glands, ſuch as the mouth, noſe, eyes, anus, and urethra; and by *non-ſecreting ſurfaces*, the external ſkin in general. To which I may add a third kind of ſurface leading from the one to the other, as the glans penis, prolabium of the mouth, the inſide of the lips, the pudendum; which ſurfaces partaking of the properties of each, but in a leſs degree, are capable of being affected in both ways, ſometimes by being excited to ſecretion, and at other times to ulceration.

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The poiſon then being the ſame in both caſes, why do they not always happen together in the ſame perſon? For one would naturally ſuppoſe, that the gonorrhœa, when it has appeared, cannot fail to become the cauſe of a chancre; and that this, when it happens firſt, muſt produce a gonorrhœa. Although it does not often happen ſo, yet it ſometimes does; at leaſt there is great reaſon to believe ſo. I have ſeen caſes where a gonorrhœa came on, and in a few days after in ſome; in others as many weeks, a chancre has appeared: and I have alſo ſeen caſes where a chancre has come firſt; and in the courſe of its cure, a running and pain in making water have ſucceeded. It may be ſuppoſed that the two diſeaſes aroſe from the original infection, and only appeared at different times; and their not occurring oftener together would almoſt induce us to believe it was ſo, ſince the matter is the ſame in both, and therefore capable of producing either the one or the other.

I ſuſpect that the preſence of one irritation in theſe parts becomes in general a preventive of the other. I have already obſerved, that the two parts ſympathiſe in their diſeaſes; and it is poſſible that that very ſympathy may prevent the appearance of the real diſeaſe; for if an action has already taken place which is not venereal, it is impoſſible that another ſhould take place till that ceaſes; and it is probable that this ſympathy will not ceaſe while the cauſe exciting it exiſts; and therefore when both happen in the ſame perſon at the ſame time, I ſuſpect that either the urethra never had ſympathiſed with the chancre, or if it did at firſt, that the ſympathy had ceaſed, and then the veneral matter might ſtimulate the parts to action.

VI. OF THE CAUSE OF THE POISONOUS QUALITY—FERMENTATION—ACTION.

As the conſideration and explanation of this point will throw ſome light upon the diſeaſe, and cure, I may be allowed to dwell a little upon it. It has been ſuppoſed by ſome, that the poiſonous quality of the matter ariſes from a fermentation taking place in it as ſoon as it is formed. But whether this poiſonous quality ariſes from that cauſe; or whether the animal

body has a power of producing matter according to the irritation given, whereby the living powers, whenever irritated in a particular manner, produce ſuch an action in the parts as to generate a matter ſimilar in quality to that which excited the action, is what I am now to conſider.

In the examination of this ſubject I ſhall confine myſelf to the gonorrhœa. In ſupport of either of the two opinions, it muſt be ſuppoſed that the venereal matter has by its ſpecific properties, a power of irritation beyond common matter. I have already obſerved, that it has the power of exciting inflammation even on the common ſkin, and of forming a chancre, which power is not poſſeſſed by common matter. In the firſt opinion it muſt be ſuppoſed, that there is no ſpecific inflammation or ſuppuration produced by the application of the venereal matter, but only a common inflammation and ſuppuration, and that the matter capable of producing theſe effects acts as a ferment upon the new-formed matter, rendering it venereal as ſoon, or nearly as ſoon as it is formed; and as there is a ſucceſſion of ſecretions, there immediately follows a ſucceſſion of fermentations. Now, let us ſee how far this idea agrees with all the variety of phænomena attending the diſeaſe. Firſt, it may be aſked, what becomes of this ferment in many caſes where the ſuppuration does not come on for ſome weeks after the irritation and inflammation have taken place? In ſuch caſes we can hardly ſuppoſe the original venereal matter to remain, and to act as a ferment. Secondly, when there is a ceſſation of the diſcharge and no matter formed, which ſometimes happens for a conſiderable time, and yet all the ſymptoms recur, what is it that produces this fermentation a ſecond time? Nothing can, but a new application of freſh venereal matter. When, for example, the irritation is tranſlated to the teſticle and the diſcharge is totally ſtopped, as often happens, what becomes of the virus; and how is a new virus formed when the irritation falls back upon the urethra? Thirdly, if the poiſonous quality were produced by fermentation taking place in the matter already formed, it would not be an eaſy matter to account for the ſymptoms ever ceaſing; for, according to my idea of a ferment, it would never ceaſe to act if new matter were continually added; nor could any thing poſſibly check it but a ſubſtance immediately applied to the part, which could ſtop or prevent the fermentation in the new matter. But as the venereal inflammation in this

ſpecies

ſpecies of the diſeaſe is not kept up beyond a certain time, the production of the poiſon cannot depend on fermentation. Fourthly, if it depended on a fermentation in the ſecreted matter, all venereal caſes would be alike, nor would one be worſe than another, except from a greater or ſmaller number of fermentating places. Upon this ſuppoſition alſo all caſes would be equally eaſy of cure; for the fermentation would be equally ſtrong in a ſlight caſe as in a bad one. It can only be fermentation in the matter after it has left the veſſels.

When the venereal matter has been applied to a ſore, ſo as to irritate, it produces a venereal irritation and inflammation. But even this does not always take place; for the common matter from the ſore may remove the venereal matter applied before it can affect the ſore, ſo as to produce the venereal inflammation and ſuppuration there. This experiment I have made ſeveral times, and have only once produced the venereal inflammation. But if the venereal matter were capable of acting as a ferment, then it would in all caſes produce venereal matter, without altering the nature of the ſore.

The effects, produced by venereal poiſon, appear to me to ariſe from its peculiar, or ſpecific irritation, joined with the aptneſs of the living principle to be irritated by ſuch a cauſe, and the parts ſo irritated acting accordingly. I ſhall therefore conſider it as a poiſon, which by irritating the living parts in a manner peculiar to itſelf, produces an inflammation peculiar to that irritation, from which a matter is produced peculiar to the inflammation. Let us conſider how far this opinion agrees with the various phænomena attending the diſeaſe.

Firſt, the venereal matter having a greater power of irritating than common matter, conveys more the idea of irritation than of fermentation. Secondly, its producing a ſpecific diſeaſe with ſpecific ſymptoms and appearances, ſhows that it has a ſpecific power of irritation, the living powers neceſſarily acting according to that irritation. Thirdly, the circumſtance of the inflammation having its ſtated time of appearance and termination, is agreeable to the laws of the animal œconomy in moſt caſes, as it is a circumſtance that takes place in other diſeaſes that have a criſis; and when the diſeaſe is longer of duration in ſome than in others, it is becauſe they are much more ſuſceptible of this kind of irritation, and there may be perhaps

other concurrent circumſtances. Fourthly, the venereal inflammation being confined to a ſpecific diſtance, is more agreeable to the idea of a ſpecific irritation, than that of a fermentation. Fifthly, we have a further proof of this opinion, from the appearance of the diſeaſe being tranſlated from one part of the body to another, as in the caſe of the ſwelled teſticle, in which the diſcharge is often ſtopped or otherwiſe affected. Sixthly, the diſcharge often ſtops from the conſtitution being attacked by a fever, and returns after ſome days or weeks, or not at all, according to the continuance of the fever. Now we can plainly ſee, why the fever ſhould put a ſtop to the diſcharge, as the diſpoſition, produced by it in a part, is very different from that diſpoſition which formed the matter; and we can plainly ſee, why the ſame diſpoſition to form matter ſhould often return; but how that return ſhould be venereal, upon the principles of fermentation, we do not ſee. Seventhly, the production by art of an irritation of another kind, which is not ſpecific, removes the ſpecific irritation; now an irritation of another kind cannot prevent the fermentation from going on, but may deſtroy the venereal irritation. Eighthly, the circumſtance of particular parts of our body being much more readily irritated than others by the venereal poiſon, when in the conſtitution, ſhows that it ariſes from an irritation, and that of a particular kind. Ninthly, we know of no other animal that is ſuſceptible of the venereal irritation; for repeated trials have ſhown that it is impoſſible to give it to a dog, a bitch, or an aſs*. It is much eaſier to ſuppoſe, that a dog or an aſs is not ſuſceptible of many irritations of which the human body is ſuſceptible, as we find to be the caſe in all other ſpecific diſeaſes, and moſt poiſons, than that the matter of the human body is ſuſceptible of a change, of which that of the dog or aſs is not.

This argument is ſtill further ſupported by comparing the venereal poiſon with other morbid poiſons. The animal poiſon, productive of the hydrophobia, ſeems to be produced by a particular irritation affecting cer-

* I have repeatedly ſoaked lint in matter from a gonorrhœa, chancre, and bubo, and introduced it into the vagina of bitches, without producing any effect. I have alſo introduced it into the vagina of aſſes, without any effect. I have introduced it under the prepuce of dogs, without any effect. I have alſo made inciſions and introduced it under the ſkin, and it has only produced a common ſore. I have made the ſame experiments upon aſſes, with the ſame reſult.

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tain parts, which ſhows, that if the body, or any part of the body, is irritated, it takes a diſpoſition to act in a peculiar manner, and that this mode of action is capable of ſecreting ſuch juices as will throw another animal into the ſame action. In the hydrophobia, the throat and its glands are particularly affected; and how the ſaliva ſhould become of ſuch a nature from the ſame kind of matter being either carried into the conſtitution, or perhaps only by the general ſympathy of the conſtitution with a local affection, and more particularly with the parts about the throat, is not eaſily to be accounted for, without a ſuppoſition either that the abſorbed poiſon circulating can produce a ſpecific conſtitutional action capable of affecting the throat and glands there, juſt as the poiſon of the ſmallpox affects the ſkin, or that the circulating poiſon has power to affect or irritate the glands of the mouth only, or that thoſe parts only are capable of immediately ſympathiſing with the part irritated, as the muſcles of the lower jaw are when they produce the locked jaw.

If this theory be juſt, it explains why epidemical diſeaſes, ariſing from particular ſeaſons, particular conſtitutions of air, &c. irritate in ſuch a manner, as to produce a fever, the effluvia of which ſhall irritate in the ſame manner. For it is not in the leaſt material how the original irritation ariſes, it is only neceſſary that there ſhould exiſt in the animal a power of acting according to the ſtimulus given by that irritation.

CHAPTER

CHAPTER II.

THE MODE OF VENEREAL INFECTION.

EVERY infectious diſeaſe has its peculiar manner of being caught, and among mankind there is generally ſomething peculiar in the way of life, or ſome attending circumſtance, which expoſes them at one time or other to contract ſuch diſeaſes, and which, if avoided, would prevent their propagation. The itch, for inſtance, is generally caught by a ſpecies of civility, the ſhaking of hands; therefore the hand is moſt commonly the part firſt affected. And as the venereal infection is generally caught by the connection between the ſexes, the parts of generation commonly ſuffer firſt. From this circumſtance people do not ſuſpect this diſeaſe, when the ſymptoms are any where elſe, while they always ſuſpect it in every complaint of thoſe parts.

In the lower claſs of people, one as naturally thinks of the itch when there is an eruption between the fingers, as in young men of the venereal diſeaſe whoſe genitals are affected: but as every ſecreting ſurface, whether cuticle or not cuticle, (as was explained before) is liable to be infected by the venereal poiſon when it is applied to it, it is poſſible for many other parts beſides the genitals to receive this diſeaſe. Therefore it appears in the anus, mouth, noſe, eyes, ears, and, as has been ſaid, in the nipples of women who ſuckle children affected by it in their mouths; which children have been infected in the birth from the diſeaſed parts of the mother.

CHAPTER III.

OF THE DIFFERENT FORMS OF THE DISEASE.

THE venereal poiſon is capable of affecting the human body in two different ways; locally, that is, in thoſe parts only to which it is firſt applied; and conſtitutionally, that is, in conſequence of the abſorption of the venereal pus which affects parts while diffuſed in the circulation.

Between the firſt and ſecond kind, or the local and conſtitutional*, certain intermediate complaints take place in the progreſs of abſorption; theſe are inflammations and ſuppurations forming what are called buboes, in which the matter is of the ſame nature with that of the original diſeaſe.

When the matter has got into the conſtitution, and is circulating with the blood, it there irritates to action. There are produced from that irritation many local diſeaſes, as blotches on the ſkin, ulcers in the tonſils, thickening of the perioſteum and bones.

The local or firſt kind is what I have called *immediate*, ariſing immediately upon the application of venereal pus. Of this kind there are two ſorts ſeemingly very different from one another. In the firſt there is a formation of matter without a breach in the ſolids, called a gonorrhœa. In the ſecond there is a breach in the ſolids, called a chancre. Neither of theſe two ways, in which the diſeaſe ſhows itſelf, is owing to any thing peculiar in the kind of poiſon applied, but to the difference in the parts contaminated.

The readineſs with which the parts run into violent action, in this ſpecies of inflammation, is greater or leſs according to the nature of the parts affected; which perhaps does not ariſe from any ſpecific difference in the

* I have called this form of the diſeaſe, conſtitutional; yet it is not ſtrictly ſo, for every complaint, in conſequence of it, is truly local, and is produced by the ſimple application of the poiſon to the parts.

parts,

parts, but is according to the common principle of ſenſibility and irritability; for we find that the vagina is not ſo much diſpoſed to inflammation in this diſeaſe, as the urethra is in the ſame ſex, becauſe it is not ſo ſenſible. However it is poſſible, that there may be ſome ſpecific diſpoſition to irritation and inflammation in the urethra in man; and what would incline me to think ſo is, that this canal is ſubject to be more frequently out of order than any other, producing a great variety of ſymptoms.

I. VARIETIES IN DIFFERENT CONSTITUTIONS.

This diſeaſe, when it appears in the form either of a gonorrhœa or a chancre, differs very much in the violence of its ſymptoms in different people. In ſome it is extremely mild, in others extremely violent. When mild, it is generally ſimple in its ſymptoms, having but few and thoſe of no great extent, being much confined to the ſpecific diſtance; but when violent, it becomes more complicated in its ſymptoms, having a greater variety, and extending itſelf beyond the ſpecific diſtance. This does not ariſe from any variety in the ſpecific virtue of the poiſon, but from a difference in the diſpoſition and mode of action of the body, or parts of the body; ſome being hardly ſuſceptible of this or any irritation, others being very ſuſceptible of it, and of every other irritation, ſo as readily to run into violent action.

The venereal irritation, however, does not always follow theſe rules; for I have known young men, in whom a ſore from common accident has healed up readily, yet the irritation attending a gonorrhœa has been violent, and a chancre has inflamed and ſpread itſelf with great rapidity, and even has mortified. On the other hand, I have known young men, in whom a ſore from common violence has been healed with great difficulty, yet when they had contracted a gonorrhœa or chancre, the diſeaſe has been mild and eaſily curable.

In particular people it is either mild or ſevere for the moſt part, uniformly. In the firſt ſtated diſpoſitions it is not invariably ſo, but then I believe there is ſome indiſpoſition at the time. I have known ſeveral gentlemen who had their

their gonorrhœas ſo ſlight in common, that they frequently cured themſelves. But it has ſo happened, that a gonorrhœa has been remarkably ſevere, and has obliged them to apply for aſſiſtance: but then they were ſoon attacked with the ſymptoms of a fever, and, when the fever has gone off, the ſymptoms of the gonorrhœa have immediately become mild. I may now alſo obſerve, that when the diſeaſe is in the form of a lues venerea, different conſtitutions are differently affected. In ſome its progreſs is very rapid, in others it is very ſlow.

CHAPTER IV.

OF THE LUES VENEREA BEING THE CAUSE OF OTHER DISEASES.

EVERY animal may be ſaid to have natural tendencies to morbid actions, which may be conſidered as prediſpoſing cauſes, and theſe may be called into action whenever the immediate cauſe takes place, which may be ſuch as to have no connection with theſe tendencies, and cannot therefore be conſidered as the cauſe of the diſeaſe. One diſeaſe excites another, and therefore is ſuppoſed to be the ſole cauſe of it. Thus ſlight fevers, or colds, ſmallpox, and meaſles, become frequently the immediate cauſe of ſcrofula; and certain derangements of the natural actions of the body often bring on the gout, agues, and other diſeaſes; but theſe diſeaſes will be always more or leſs, according to the conſtitution and parts; and the conſtitutions will differ according to circumſtances, which may be numerous; two of theſe, however, will be local ſituation, and age.

In this country the tendency to ſcrofula ariſes from the climate, which is in many a prediſpoſing cauſe, and only requires ſome derangement to become an immediate cauſe and produce the whole diſeaſe.

The venereal diſeaſe alſo becomes often the immediate cauſe of other diſorders, by calling forth latent tendencies to action. This does not happen from its being venereal, but from its having deſtroyed the natural actions, ſo that the moment the venereal action and diſpoſition is terminated, the other takes place; and I have ſeen in many caſes the tendency ſo very ſtrong, that it has taken place before the venereal has been entirely ſubdued; for by purſuing the mercurial courſe the ſymptoms have grown worſe; but by taking up the new diſpoſition, and rendering it leſs active than the venereal, the venereal has come into action anew; and theſe effects have taken place alternately ſeveral times. In ſuch caſes it is a lucky circumſtance when the two modes of treatment can be united; but where they act in oppoſition

poſition it is very unfortunate. If the venereal diſeaſe attacks the lungs, although that diſpoſition may be corrected, conſumption may enſue; and in like manner where the bones are affected, or the noſe, ſcrofulous ſwellings or fiſtula lacrymalis may be the conſequence, though the diſeaſe may have been cured.

Many of the diſeaſes ariſing from this ſource appear to be peculiar to ſuch cauſes, and ſeem to be formed out of the conſtitution, the diſeaſe, and method of cure. It is therefore difficult to ſay of what nature ſuch a diſeaſe may be; but it will in general have a particular tendency from the conſtitution; and if we are acquainted with the general tendency of a conſtitution, we are to ſuſpect that as the ſtrongeſt cauſe, and that the diſeaſe will partake more of it than the other. In this country theſe complaints have moſt commonly a ſcrofulous tendency, and are often truly ſcrofulous, the diſeaſe partaking more of that diſpoſition than any other.

Parts have alſo their peculiar tendency to diſeaſes, which are ſtronger than thoſe of the conſtitution at large; and when injured they will of courſe fall into the morbid action ariſing from ſuch tendencies. Therefore, when parts have had their natural actions deſtroyed by a venereal irritation, thoſe tendencies will be brought into action; and therefore, the diſeaſes ariſing from the tendencies of ſuch parts are to be kept in view. They will be aſſiſted likewiſe by local ſituation, and age.

In particular countries, and in young people, the tendency to ſcrofula will be predominant; therefore buboes in them will more readily become ſcrofulous. In old people they may form cancers; and when in parts of the body which have a particular tendency to cancer, that diſeaſe will more readily take place.

The want of knowledge, and of attention to this ſubject, has been the cauſe of many miſtakes; for whenever ſuch effects have been produced in conſequence of the venereal diſeaſe, it has immediately been blamed, and not only as a cauſe, but it has been ſuppoſed to be the diſeaſe itſelf. This is an inference natural enough to thoſe who cannot ſee that a variety of cauſes are capable of producing one effect; or, in other words, that where the prediſpoſing cauſe is the ſame, a variety of immediate cauſes may

produce the ſame action. It ſhows great ignorance, however, to ſuppoſe the venereal diſeaſe can be both the prediſpoſing and immediate cauſe.

When the venereal diſeaſe attacks the urethra, it often becomes itſelf the prediſpoſing cauſe of abſceſſes, and many other complaints; when it attacks the outſide of the penis, forming chancres, they often ulcerate ſo deep as to communicate with the urethra, producing fiſtula in the urethra, and often a continued phymoſis.

In deſcribing diſeaſes which, like the venereal diſeaſe, admit of a great variety of ſymptoms, we ſhould keep a middle line, firſt giving the moſt common ſymptoms of the diſeaſe in each form, then the varieties which moſt commonly occur, and laſt of all the moſt uncommon; but it will not be eaſy to take notice of every poſſible variety. Therefore, when a variety occurs not mentioned, it is not to be ſuppoſed, that the author is leading his readers aſtray, or is unacquainted with the diſeaſe at large. If his general principles are juſt, they will help to explain moſt of the ſingularities of the diſeaſe.

PART

PART II.

CHAPTER I.

OF GONORRHŒA.

WHEN an irritating matter of any kind is applied to a ſecreting ſurface, it increaſes that ſecretion, and changes it from its natural ſtate (whatever that be) to ſome other. This, in the preſent diſeaſe, is pus.

When this takes place in the urethra, it is called a gonorrhœa; and as it ariſes from the matter being applied to a non-cuticular ſurface, which naturally ſecretes ſome fluid, it is of no conſequence in what part of the body this ſurface is; for, if in the anus, it will produce a ſimilar diſcharge there, and a ſimilar effect on the inſide of the mouth, noſe, eyes, and ears. It is conceived by ſome, that gonorrhœas may take place without the above-mentioned immediate cauſe; that is, that they may ariſe from the conſtitution; if ſo, they muſt be ſimilar to what is ſuppoſed to be a venereal ophthalmia. But from the analogy of other venereal affections proceeding from the conſtitution, I very much ſuſpect the exiſtence of either the one or the other: for when the poiſon is thrown upon the mouth, throat, or noſe, it produces ulcers, and not an increaſed ſecretion like a gonorrhœa. But we never find an ulcer on the inſide of the eye-lids in thoſe ophthalmiæ; and gonorrhœas in the urethra are too frequent to proceed from ſuch a cauſe.

Till about the year 1753, it was generally ſuppoſed, that the matter from the urethra, in a gonorrhœa, aroſe from an ulcer or ulcers in that paſſage; but from obſervation it was then proved that this was not the caſe.

It may not be improper to give here a ſhort hiſtory of the diſcovery that matter may be formed by inflammation without ulceration. In the winter

1749,

1749, a child was brought into the room, uſed for diſſection, in Covent Garden; on opening of whoſe thorax a large quantity of pus was found looſe in the cavity, with the ſurface of the lungs and the plura furred over with a more ſolid ſubſtance ſimilar to coagulable lymph. On removing this from thoſe ſurfaces, they were found entire. This appearance being new to Dr. Hunter, he ſent to Mr. Samuel Sharp, deſiring his attendance; and to him it alſo appeared new. Mr. Sharp, afterwards, in the year 1750, publiſhed his Critical Enquiry, in which he introduced this fact, "That matter may be formed without a breach of ſubſtance;" not mentioning whence he had derived this notion. It was ever after taught by Dr. Hunter in his lectures. We, however, find writers adopting it without quoting either Mr. Sharp or Dr. Hunter. So much being known, I was anxious to examine, whether the matter in a gonorrhœa was formed in the ſame way. In the ſpring of 1753, there was an execution of eight men, two of whom I knew had at that time very ſevere gonorrhœas. Their bodies being procured for this particular purpoſe, we were very accurate in our examination, but found no ulceration. The two urethras appeared merely a little blood-ſhot, eſpecially near the glans. This being another new fact aſcertained, it could not eſcape Mr. Gataker, ever attentive to his emolument, who was then attending Dr. Hunter's lectures, and alſo practiſing diſſection under me. He publiſhed, ſoon after, in 1754, a treatiſe on this diſeaſe, and explained fully, that the matter in a gonorrhœa did not ariſe from an ulcer, without mentioning how he acquired this knowledge; and from that time ſucceſſive writers have repeated the ſame doctrine. Since the period mentioned above, I have conſtantly paid particular attention to this circumſtance, and have opened the urethra of many who at the time of their death had a gonorrhœa, yet have never found a ſore in any; but always obſerved that the urethra, near the glans, was more blood-ſhot than uſual, and that the lacunæ were often filled with matter. I have indeed ſeen an inſtance of a ſore a little within the urethra; but this ſore was not produced by any ulceration of the ſurface, but from an inflammation taking place, probably, in one of the glands, which produced an abſceſs in the part, and that abſceſs opened its way into the urethra. The very ſame ſore opened a way through externally at the frænum, ſo that there was a new paſſage

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for the urine. Indeed the method of curing a gonorrhœa might have ſhown that it could not depend upon a venereal ulcer; for there is hardly an inſtance of a venereal ulcer being cured by any thing but mercury, eſcharotics excepted. We know, however, that moſt gonorrhœas are curable without mercury; and what is ſtill more, without any medical aſſiſtance; which, I believe, is never the caſe with a chancre. This doctrine, that a gonorrhœa does not depend on ulcers, was firſt taught publicly by Dr. Hunter, at his lectures, in the year 1750; but he did not attempt to account for it.

I. OF THE TIME BETWEEN THE APPLICATION OF THE POISON, AND EFFECT.

In moſt diſeaſes there is a certain time between the application of the cauſe, and the appearance of the effect. In the venereal diſeaſe this time is found to vary conſiderably, owing probably to the ſtate of the conſtitution when the infection was received. Each form of the diſeaſe alſo varies in this reſpect; the gonorrhœa and chancre being earlier in their appearance after contamination than the lues venerea, and of the two former the gonorrhœa appearing ſooner than the chancre. In the gonorrhœa, the times of appearance are very different; I have had reaſon to believe that in ſome the poiſon has taken effect in a few hours, while in others it has been ſix weeks; and I have had examples of it in all the intermediate periods. So far, however, as we can rely upon the veracity of our patients, (and further evidence we cannot have) ſix, eight, ten, or twelve days ſhould appear to be the moſt common period, though it is capable of affecting ſome people much ſooner, and others much later. I was informed by a married gentleman, who came from the country, and left his wife behind him, that in a frolick he went to a bagnio and had connection with a woman of the town. The next morning he left her, and he had no ſooner got to his lodging than he felt a moiſture of the part, and upon inſpection he found a beginning gonorrhœa, which proved a very troubleſome one. I was told by another gentleman, that he had been with a woman over night, and in the morning the gonorrhœa appeared; and that the ſame happened to him twice.

twice. I was informed by a third gentleman, that the diſcharge appeared in ſix-and-thirty hours after the application of the poiſon. In the above-mentioned patients the infection muſt have ariſen from the poiſon applied at thoſe ſtated times, as neither of theſe patients are ſuppoſed to have had an opportunity of receiving the infection for many weeks before.

Theſe aſſertions from men of veracity, and where there could be no temptation to deceive, not even an imaginary one, are ſufficient evidences. On the other hand, upon equally good authority, I have been informed that ſix weeks after the application had paſſed, before any ſymptom appeared. The patient had ſtrange and uncommon complaints preceding the running, ſuch as an unuſual ſenſation in the parts, with moſt of the other ſymptoms of gonorrhœa, except the diſcharge. He had the ſame complaint about twelve months afterwards; and then it was four weeks from the application of the poiſon before it appeared, giving for ſome part of that time the former diſagreeable ſenſations; but from his late experience he ſuſpected what was coming. From this I am inclined to believe that it ſeldom or never lies perfectly quiet ſo long, and that the inflammatory ſtate may take place for ſome conſiderable time before the ſuppurative; and in theſe caſes there is leſs diſpoſition for a cure, as the very diſpoſition which forms a running is in general a ſalutary one, and is an intermediate ſtep between the diſeaſe, which is the inflammation, and the cure; for in the time of ſuppuration a change has taken place in the veſſels producing the formation of matter. If this change ſhould never take place, it is not certain what would be the conſequence; whether the inflammation would go off without ſuppuration, as in many common inflammations, I have not been able to determine, but ſhould ſuſpect that it would continue much longer than uſual, becauſe the parts have not completed their actions; and I alſo ſuſpect that ſuch caſes always ariſe from ſome peculiarity of conſtitution.

II. OF THE DIFFICULTY OF DISTINGUISHING THE VIRULENT FROM THE SIMPLE GONORRHŒA.

The ſurface of the urethra is ſubject to inflammation and ſuppuration from various other cauſes beſides the venereal poiſon; and ſometimes diſcharges

charges happen ſpontaneouſly when no immediate cauſe can be aſſigned. Such may be called ſimple gonorrhœas, having nothing of the venereal infection in them; though thoſe perſons that have been formerly ſubject to virulent gonorrhœas are moſt liable to them. It is given as a diſtinguiſhing mark between the ſimple and the virulent gonorrhœa, that the ſimple comes on immediately after copulation, and is at once violent; whereas the virulent comes on ſome days after, and gradually. But the ſimple is not in all caſes a conſequence of a man's having had connection with women, it does not always come on at once, nor is it always free from pain. On the other hand we ſee many venereal gonorrhœas that begin without any appearance of inflammation; and I have been very much at a loſs to determine whether they were venereal or not; for there are a certain claſs of ſymptoms common to almoſt all diſeaſes of the urethra, from which it is difficult to diſtinguiſh the few that ariſe ſolely from the ſpecific affection. I have known the urethra ſympathiſe with the cutting of a tooth * producing all the ſymptoms of a gonorrhœa. This happened ſeveral times to the ſame patient. The urethra is known to be ſometimes the ſeat of the gout †. I have known it the ſeat of the rheumatiſm. The urethra of thoſe, who have had venereal complaints, is more apt to exhibit ſymptoms ſimilar to gonorrhœa, than the urethra of thoſe who have never had any ſuch complaint; and it is generally in conſequence of the parts having been hurt by that diſeaſe, that the ſimple gonorrhœa comes on; which, perhaps, is alſo a reaſon why they are in ſome meaſure ſimilar. A diſcharge, and even pain, attacks the urethra; and ſtrange ſenſations are every now and then felt in theſe parts, which may be either a return of the ſymptoms of the venereal diſeaſe without virus, may ariſe as it were ſpontaneouſly, or may be a conſequence of ſome other diſeaſe. When it happens in conſequence of ſome former venereal gonorrhœa, it is ſeldom conſtant, and may be called a temporary gleet, ceaſing for a time and then returning; but in ſuch caſes the parts ſeldom ſwell; the glans does not change to the ripe cherry colour, nor does it ſweat a kind of matter. Such a complaint, as a diſcharge without virus, is known to exiſt by its coming on when there has been no late connection with

* Nat. Hiſt. of Teeth, pt. II. p. 126. † Eſſays and Obſ. Phyſ. and Liter. of Edin. v. III. p. 425.

women, and likewiſe by its coming on of its own accord where there had never been any former venereal complaint, nor any chance of infection. From its commonly going off ſoon, both in thoſe who have had connection with women, and in thoſe who have not, it becomes very difficult in many caſes to determine whether or not it is venereal; for it is often thought venereal when it really is not ſo; and on the other hand it may be ſuppoſed to be only a return of the gleet, when it is truly venereal; but perhaps this is not ſo material a circumſtance as might at firſt be ſuppoſed. Theſe diſeaſes, when they are a conſequence of former venereal complaints, may be conſidered only as an inconvenience intailed on thoſe who have had the venereal gonorrhœa. No certain cure for them is known: they are ſimilar to the fluor albus in women.

III. OF THE COMMON FINAL INTENTION OF SUPPURATION NOT ANSWERING IN THE PRESENT DISEASE.

When a ſecreting ſurface has once received the inflammatory action, its ſecretions are increaſed, and viſibly altered. Alſo when the irritation has produced inflammation and an ulcer in the ſolid parts, a ſecretion of matter takes place, the intention of which in both ſeems to be to waſh away the irritating matter; ſo that it is the end of irritations to produce their own deſtruction, like a mote in the eye which by increaſing the ſecretion of tears is itſelf waſhed away. But in inflammations ariſing from ſpecific or morbid poiſons, this effect cannot be produced; for although the firſt irritating matter be waſhed away, yet the new matter formed has the ſame quality with the original; and therefore upon the ſame principle, it would produce a perpetual ſucceſſion of irritations, and of courſe ſecretions, even if there were no other cauſe for the continuance than its own matter. But the venereal inflammation is not kept up by the pus which is formed; but like many other ſpecific diſeaſes, by the ſpecific quality of the inflammation itſelf. This inflammation, however, it would appear, can only laſt a limited time; the ſymptoms peculiar to it vaniſhing of themſelves by the parts becoming leſs and leſs ſuſceptible of irritation. This circumſtance is not peculiar to this particular form of the venereal diſeaſe; it is perhaps common to almoſt

every

every diſeaſe that can affect the human body. From hence it will appear, that the conſequent venereal matter has no power of continuing the original irritation; and indeed if this were not the caſe there would be no end to the diſeaſe.

As the living principle in many diſeaſes is not capable of continuing the ſame action, it alſo loſes this power in the preſent, when the diſeaſe is in the form of a gonorrhœa, and the effect is at laſt ſtopped, the irritation ceaſing gradually. This ceſſation will vary according to circumſtances; for if the irritated parts are in a ſtate very ſuſceptible of ſuch irritations, in all probability their actions will be more violent and continue longer; but in all caſes the difference muſt ariſe from the difference in the conſtitution, and not from any difference in the poiſon itſelf.

The circumſtance of the diſeaſe ceaſing ſpontaneouſly, only happens when it attacks a ſecreting ſurface, and when a ſecretion of pus is produced; for when it attacks a non-ſecreting ſurface, and produces its effects there, that is an ulcer; the parts ſo affected are capable of continuing the diſeaſe, or this mode of action for ever, as will be taken notice of when we ſhall hereafter conſider chancre. But this difference between ſpontaneous and non-ſpontaneous cure, ſeems to depend more on the difference in the two modes of action, than on the difference in the two ſurfaces; for when the diſeaſe produces an ulcer on a ſecreting ſurface, which it often does from the conſtitution, as on the tonſils, it has no diſpoſition to cure of itſelf; nor in the urethra, in a recent caſe, if ulcers are formed there, would they heal more readily than when formed in any other part.

The common practice proves theſe facts. We every day ſee gonorrhœas cured by the moſt ignorant; but in chancre, or the lues venerea, more ſkill is neceſſary. The reaſon is obvious: gonorrhœa cures itſelf, whilſt the other forms of the diſeaſe require the aſſiſtance of art.

It ſometimes happens, that the parts, which become irritated firſt, get well, while another part of the ſame ſurface receives the irritation, which continues the diſeaſe, as happens when it ſhifts from the glans to the urethra.

From this circumſtance of all gonorrhœas ceaſing without medical help, I ſhould doubt very much the poſſibility of a perſon getting a freſh gonorrhœa while he has that diſeaſe; or of his increaſing the ſame by the application of freſh matter of its own kind. And this obſervation holds in all

the forms of the diſeaſe; for it has been proved, that the application of the matter from a gonorrhœa to a bubo does not in the leaſt retard the cure of that bubo; nor does the matter of a chancre applied to a bubo, nor the matter of a bubo applied to a chancre, produce any bad effect; though if venereal matter is applied to a common ſore, it will often produce the venereal irritation. By all which I am led to believe that the venereal matter formed in a gonorrhœa does not aſſiſt in keeping up that gonorrhœa; for it is only an application of matter, the poiſon and effects of which are exactly ſimilar to the effects upon the ſolids already produced; and that nothing could increaſe or continue the effect but ſomething that is capable of increaſing the diſpoſition of the parts themſelves to ſuch inflammation, or of making them more ſuſceptible of it. We find beſides, that a gonorrhœa may be cured while there is a chancre, and vice verſa: now if freſh venereal matter were capable of keeping up the diſeaſe, no gonorrhœa could ever get well, while there is this ſupply of venereal matter*. From all this it is reaſonable to ſuppoſe that ſuch a ſurface of an animal body is not capable of being irritated by its own matter; nor is it capable of being irritated beyond a certain time; and therefore if freſh venereal matter were continued to be applied to the urethra of a man having a gonorrhœa, that it would juſt go off as ſoon as if no ſuch application had been made, and get as ſoon well as if great pains had been taken to waſh its own matter away. The ſame reaſoning holds good in chancres.

I carry this idea ſtill further, and aſſert that the parts become leſs ſuſceptible of the venereal irritation; and that not only a gonorrhœa cannot be continued by the application of either its own or freſh matter; but that a

* When treating of pus, in my lectures, I obſerved that I was inclined to believe that no matter, of whatever kind, can produce any effect upon the part that formed it: nor do I believe that the matter of any ſore, let it be what it will, ever does or can do any hurt to that ſore; for the parts which formed the matter are of the ſame nature, and cannot be irritated by that which they produced, except extraneous matter is joined with it. The gland which forms the poiſon of the viper, and the duct which conveys it to the tooth, are not irritated by the poiſon: and it would appear from Abbé Fontana's experiments, that the viper cannot be affected by its own poiſon. Vide Traitè ſur le Vènin de la Vipere, par M. F. Fontana, vol. 1. page 22. If what I have now advanced is true, wiping, or waſhing away matter under the idea of keeping the parts clean, is in every caſe abſurd.

man

man cannot get a freſh gonorrhœa, or a chancre, if he applies freſh venereal matter to the parts when the cure is nearly completed, and continues the application ever after, or at leaſt at ſuch intervals as are within the effect of habit. I can conceive that in time the parts may become ſo habituated to this application as to be inſenſible of it; for by a conſtant application, the parts would never be allowed to forget this irritation, or rather never become unaccuſtomed to it; and therefore this ſupply of freſh matter could not affect the parts ſo as to renew the diſeaſe till they firſt recovered their original and natural ſtate; and then they would be capable of being affected again.

This opinion is not derived from theory only, but is founded on experience and obſervation. A man, immediately after having ſuffered a gonorrhœa, ſhall have frequent connections with women of the town, and that for years ſucceſſively, without being infected; yet a freſh man ſhall contract it immediately from the very ſame woman; and if the firſtmentioned man were to be out of the habit of this irritation for ſome time, he then would be as eaſily infected as the other. Where this habit is not ſo ſtrong as to prevent altogether the parts from being affected, ſtill it will do it in part; and it is a ſtrong proof of this, that moſt people have their firſt gonorrhœa the moſt ſevere, and the ſucceeding ones generally become milder and milder, till the danger of infection almoſt vaniſhes.

This ſeems to be explained by the following facts. A married man, who had had a communication with his wife only for ſeveral years, ſlept with a woman with whom he had formerly cohabited. She gave him a ſevere gonorrhœa, and declared that ſhe was not conſcience of being diſeaſed. He put himſelf and her under my care; and while they were going on with their cures they ſtill continued their intercourſe, which I readily allowed. He got well, and it was ſuppoſed ſhe got well alſo. The intercourſe was continued between them for many months after, without any miſchief received on his ſide, or any ſuſpicion of remaining diſeaſe on hers. At laſt this connection was broken off; and ſhe formed another attachment: ſhe no ſooner formed this new attachment than ſhe gave her new lover a gonorrhœa; ſhe now flew to me for a cure, and declared that ſhe had no connection but with the two gentlemen beforementioned, and therefore that the preſent diſeaſe muſt be the ſame for which I had attended her formerly.

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Her ſecond lover was not a patient of mine; but I gave her medicines which ſhe very much neglected to take. Her lover continued his connection, as the firſt had done, for ſeveral months after he had got well, without any further infection from her; but unfortunately her firſt lover returned about a twelvemonth after; and thinking himſelf ſecure, as ſhe lived in peace with the preſent, renewed his acquaintance with her, and but once. The conſequence, however, was a gonorrhœa.

Had the woman the gonorrhœa all this time? And what was the reaſon why thoſe gentlemen did not catch the diſeaſe, except after that the acquaintance had been interrupted for ſome time? Was it the effect of habit, by which the parts loſt their ſucceptibility of that irritation?

The caſe of a young woman from the Magdalen hoſpital is a ſtriking proof of this, as far as circumſtances can prove a fact. She was received into that houſe, and continued the uſual time, which is two years. The moment ſhe came out ſhe was picked up by one who was waiting for her with a poſt-chaiſe to carry her off immediately. She gave him a gonorrhœa.

This opinion of parts being ſo habituated to this irritation as hardly to be affected by it, is ſtrengthened by obſerving, that in the gonorrhœa the violent ſymptoms ſhall often ceaſe, and the diſeaſe ſhall ſtill continue, ſpinning itſelf out to an amazing length, with no other ſymptoms than a diſcharge; yet that diſcharge ſhall be venereal. This I have frequently ſeen; and the following is an abſtract of a ſingular caſe of this kind.

A gentleman had connection with a woman of the town, and received a venereal gonorrhœa in the beginning of April 1780. He, at firſt, could hardly believe it to be venereal, as he had kept the woman in the country, where ſhe had ſcarcely ever been out of his ſight; but the violent pain in making water, great running, chordee, and ſwelled teſticle, convinced him that it was venereal. When the cure was going on tolerably well, and he had got the better of one ſwelled teſticle, the other began to ſwell; however, all the ſymptoms gradually diſappeared, except the chordee, hardneſs of the epididymis, and a ſmall gleet which was ſlimy. On the 12th of June he went into the country; while he was in the country the chordee

went

went off, and the hardneſs of the epididymis entirely diſappeared; but ſtill a ſlimy gleet remained, although but trifling.

September the firſt, he married a young lady, and endeavouring to enter the vagina, he found great difficulty, which brought on a return of the chordee, and an increaſed diſcharge. On the 10th, ſhe began to complain of heat, and pain, and of a difficulty and frequency in making water; and when ſhe made water there was forced out ſome matter; ſhe had alſo a dull heavy pain, and a ſenſe of weight at the bottom of her belly, and round her hips, with great ſoreneſs of the parts when ſhe ſat. Theſe ſymptoms had been preceded by an itching about the orifice of the vagina.

By taking a mercurial pill, and rubbing the parts with mercurial ointment, in about eight days the violence of the ſymptoms abated. They were now allowed to cohabit; but whenever they came together, the pain which ſhe ſuffered was exceſſive. The parts were waſhed with a ſolution of corroſive ſublimate and ſugar of lead, and anointed with mercurial ointment; which applications being continued for ſome time, the ſoreneſs went off. He was treated medically; and afterwards all was well.

Here was a venereal gonorrhœa contracted about the beginning of April; all the ſymptoms had diſappeared by the firſt of June, and there only remained ſome of the conſequences, ſuch as chordee, hardneſs of the epididymis, and a diſcharge of a little ſlimy mucus, which could only be obſerved in the morning. In a ſhort time the chordee and hardneſs in the epididymis had entirely gone off, and merely the ſmall diſcharge of mucus, which appeared only in the morning, remained; yet three months after he communicated the diſeaſe to his wife.

I was conſulted in the following caſe by the ſurgeon who attended: July 13th, 1783, a perſon had connection with a woman of the town: the 30th that is ſeventeen days after, a gonorrhœa came on, which was violent. He took mercurial pills and gentle purges. In twelve days the violent ſymptoms abated, and about the 4th of September the diſcharge was ſtopped. On the 9th it began to appear again, but only laſted a few days; and would come and go in this way ſometimes every two days; often ſix or ſeven days. On the 28th of September he had connection with his wife, while he had a ſmall diſcharge. The 9th of October he had connection again;

and

and three days after ſhe complained of heat in making water, with a diſcharge and other ſymptoms of gonorrhœa which were violent. About the latter end of October her complaints were almoſt removed; ſome only of the ſymptoms appearing and diſappearing till January 1784, when he had connection with her to try whether ſhe could give it him, viz. three months after the ſecond connection; and in fourteen days after this he had all the ſymptoms of a gonorrhœa. April 29, he was not perfectly well, having a diſcharge, with a pain in the perinæum; and ſhe alſo had a diſcharge. If this laſt attack, in January 1784, in him was a gonorrhœa, then of courſe ſhe muſt have had it; and alſo of courſe he muſt have loſt his in the intermediate time, between the 9th of October 1783, and January 1784; for if he had had it alſo then, it could not have produced any effect upon him.

It was impoſſible to ſay whether they had now the infection or not, for any trials upon themſelves would prove but little, except one of them only had it ſo as to infect the other; but if both had it, no alteration could take place in either; as it could not be aſcertained whether they had the diſeaſe or not; and as there were ſuſpicious ſymptoms in both, when joined with all the circumſtances, I agreed with the attending ſurgeon, it was moſt prudent to treat them as if actually affected with a gonorrhœa.

If it is true, as is aſſerted in the voyage round the world, that the venereal diſeaſe was carried to Otaheite, it ſhows that it can be long retained after all ideas of its exiſtence have ceaſed; and when it is retained for ſuch a length of time, it is moſt probably in the form of gonorrhœa*.

In like manner, a venereal bubo, if it could be kept a conſiderable time between the point of ſuppuration and reſolution, would become indolent from habit, continue in that point of ſuſpenſion, and remain perhaps almoſt incurable. Such, I think, I have ſeen.

IV. OF THE VENEREAL GONORRHŒA.

In treating of the ſeat, extent, and ſymptoms of gonorrhœa, I ſhall begin with ſuch particulars as are conſtant or moſt frequent, and take them as much

* Vide page 14.

as

as poſſible in the order they become leſs ſo; for there is a conſiderable variety in different gonorrhœas.

V. OF THE SEAT OF THE DISEASE IN BOTH SEXES.

The ſeat of this diſeaſe, in both ſexes, is commonly the parts of generation. In men it is generally the urethra; though it ſometimes takes place on the inſide of the prepuce and ſurface of the glans. In women it is the vagina, urethra, labia, clitoris, or nymphæ.

The diſeaſe has its ſeat in theſe parts from the manner in which it is caught. But if we were to conſider the ſurface of contact ſimply in men, we ſhould naturally ſuppoſe that the glans penis, or the orifice of the urethra, would be the firſt, or indeed the only parts affected; yet moſt commonly they are not; for though there are caſes where the glans is affected, and where the diſeaſe goes no further, I believe, it ſeldom attacks the orifice of the urethra, without paſſing ſome way along that canal. How far it ever can be ſaid to affect the prepuce only, I am not quite certain, although I believe it ſometimes happens; for I have ſeen inflammation there, as well with, as without, a diſcharge from the urethra, which appeared to me to be venereal. I have ſeen in ſuch caſes the inflammation extending into the looſe cellular membrane of the prepuce, and producing a phymoſis; and this inflammation I ſuſpect to be of the eryſipelatous kind.

When the diſeaſe attacks the glans, and other external parts, as for inſtance the prepuce, it is principally about the root of that body, and the beginning of the prepuce, the parts where the cuticle is thinneſt, and of courſe where the poiſon moſt readily affects the cutis; but ſometimes it extends over all the glans and alſo the whole external ſurface of the prepuce. It produces there a ſoreneſs or tenderneſs, with a ſecretion of thinniſh matter, commonly without either excoriation or ulceration. I am not certain, however, that it does not ſometimes excoriate thoſe parts; for I once ſaw a caſe, where almoſt the whole cuticle was ſeparated from the glans. The patient aſſured me that it was venereal; and, from the particular circumſtances, which he related, I had no reaſon to think his opinion ill founded. He never had

had any ſuch complaint from connection with women before that time. Perhaps the diſeaſe begins oftener on thoſe parts than is commonly immagined; but, being defended by a cuticle, they are but little ſuſceptible of this kind of irritation; and this may be the reaſon why a permanent effect is not produced, and why it is often ſo ſlight as not to be obſerved. When the glans or prepuce, or both, ſuffer the venereal inflammation, it often reſts there and goes no further, not being attended with a diſcharge of matter, nor with pain in the urethra. This the following caſe illuſtrates.

A young gentleman, from Ireland, ſlept with a woman at Briſtol; and a fortnight afterwards he had intercourſe with another woman in London, which laſt happened to be on a Monday, and on the Tueſday, or the day following, he obſerved a diſcharge from the end of his penis when covered with the prepuce. On the Saturday following he applied to me. Upon examination, I found that the running came from the inſide of the prepuce, near to the glans; and the corona glandis, as alſo that part of the prepuce which is behind it, appeared to be in a tender and excoriated ſtate, and covered with matter. He told me he had once had a gonorrhœa before; and upon being aſked if it was in the ſame place, he ſaid it was. Not being certain how far this might be venereal, I made the following inquiry; whether he had been ſubject to ſuch excoriations before he had viſited women? And his anſwer was, that he never had; and that he had not this complaint always after coition, but only twice, as has been abovementioned; which, being uncommon, inclined him to ſuppoſe the effect to be venereal.

I ſuſpect, that, when the prepuce ſwells in a gonorrhœa of the urethra, producing a phymoſis, which is often the caſe, it ariſes from the ſame diſeaſe having affected its inſide, and that, not being ſufficient to produce ulceration, it goes no further. It ſeems probable that this inflammation is of the eryſipelatous kind; a circumſtance very neceſſary to be known in the cure.

The urethra is the part in which this form of the venereal diſeaſe is moſt frequent; and, although the inflammation, attending the diſeaſe in this part, has many of the common ſymptoms of inflammation, yet it can hardly be called inflammatory, when moderate; at leaſt it does not conſtantly produce

all

all the effects of common inflammation, though there is a tendency towards it. The parts ſeldom have all the characteriſtic ſymptoms; for there is no throbbing ſenſation; there is but little pain, except from the irritation of the urine and diſtention of the parts; the inflammation ſeldom goes deeper than the ſurface; and we have therefore rarely any tumefaction or thickening of the parts. It ſhould rather ſeem to be an error loci on the ſurface of the urethra, like a bloodſhot eye.

The ſecretion of pus with ſo little inflammation, is perhaps owing to theſe parts being naturally in a ſtate of ſecretion; therefore the tranſition from an healthy to a diſeaſed ſecretion is more eaſily produced. It ſometimes happens however, that the parts do inflame conſiderably, and the inflammation goes deep into the cellular, or rather reticular membrane of the corpus ſpongioſum urethræ, eſpecially near the glans. Sometimes it extends further along the corpus ſpongioſum urethræ, producing tumefaction, that is, an extravaſation of the coagulable lymph, which is the common cauſe of chordee. It may be obſerved in general, that in moſt caſes when ſuppuration is produced, there is a decreaſe of inflammation. The inflammation in the reticular membrane of the ſurrounding parts would appear not to be always confined to the adheſive ſtage; for in thoſe parts we have ſometimes ſuppurations, eſpecially in the perinæum, which ſuppurations I ſuſpect to be in the glands, as will be taken notice of hereafter.

The gonorrhœa does not always attack an urethra otherwiſe ſound; nor does it always attack an urethra the relative parts of which are always ſound. Thus we find people contracting this diſeaſe while they are affected with ſtrictures, a ſwelled proſtate gland, as alſo diſeaſed teſticles, or ſuch teſticles as very readily run into diſeaſe; by which the malady becomes more complicated and requires more attention in the method of cure. Sometimes ſuch diſeaſes are relieved by the gonorrhœa, at other times increaſed.

VI. OF THE MOST COMMON SYMPTOMS, AND THE ORDER OF THEIR APPEARANCE.

Although the irritation muſt always begin firſt, yet it is not certain which of the ſymptoms, in conſequence of that irritation, will firſt appear;

for any one may appear ſingly without the others, though this is rarely the caſe. The firſt ſymptom, when carefully attended to, is generally an itching at the orifice of the urethra, ſometimes extending over the whole glans;* a little fulneſs of the lips of the urethra; the effects of inflammation are next obſervable, and ſoon after a running appears; the itching changes into pain, more particularly at the time of voiding the urine; there is often no pain till ſome time after the appearance of the diſcharge, and other ſymptoms; and in many gonorrhœas there is hardly any pain at all, even when the diſcharge is very conſiderable; at other times the pain, or rather a great degree of ſoreneſs will come on long before any diſcharge appears.

There is generally at this time a greater fulneſs in the penis, and more eſpecially in the glans, although it is not near ſo full as when erected, being rather in a ſtate of half-erection. Beſides this fulneſs, the glans has a kind of tranſparency, eſpecially near the beginning of the urethra, where the ſkin is diſtended, being ſmooth and red, reſembling a ripe cherry; this is owing to the reticular membrane, at this time loaded with a quantity of extravaſated ſerum, and the veſſels filled with blood. Near the beginning of the urethra there is in many caſes an evident excoriation, which is marked by the termination of the cuticle all around. The ſurface of the glans alſo is often in an half-excoriated ſtate, which gives it a degree of tenderneſs; and there ouſes out from it a kind of matter, as has been before obſerved. The canal of the urethra becomes narrower, which is known by the ſtream of the urine being ſmaller than common. This proceeds from the fulneſs of the penis in general, and from the internal membrane of the urethra being ſwollen by the inflammation, and alſo from its being in a ſpaſmodic ſtate. Beſides theſe changes, the fear of the patient, whilſt voiding his urine, aſſiſts in diminiſhing the ſtream of urine. The ſtream, as it flows from the urethra, is generally much ſcattered and broken as ſoon as it leaves the paſſage, which is owing to the internal canal having become irregular, and is not peculiar to a venereal gonorrhœa, but common to every diſeaſe of the urethra, that alters the exact and natural figure of the canal,

* Theſe ſymptoms are moſt carefully obſerved by thoſe who are under apprehenſions of having the diſeaſe, and therefore are attentive to every little ſenſation about thoſe parts.

even

even although the irregularity is very far back. This we find in many diſeaſed proſtate glands.

There is frequently ſome degree of hæmorrhage from the urethra. This I ſuppoſe ariſes from the diſtention of the veſſels, more eſpecially when there is a chordee, or a tendency to one.

There are often ſmall ſwellings obſervable along the lower ſurface of the penis in the courſe of the urethra. Theſe, I ſuſpect, are the glands of the urethra ſo enlarged as to be plainly felt on the outſide. They inflame ſo much in ſome caſes as to ſuppurate; and, according to the laws of ulceration, the matter is brought to the ſkin, forming one, two, or more abſceſſes along the under ſurface of the urethra, and ſome of theſe breaking internally form what are called internal ulcers. I have obſerved in ſeveral caſes a tumor on the under ſide of the penis, where the urethra is, which would ſwell at times very conſiderably, even to the ſize of a ſmall flattened nut, inflame, and then, a guſh of matter flowing from the urethra, would almoſt immediately ſubſide. The diſcharge has continued for ſome time, gradually diminiſhing till it has entirely gone off, and the tumor has been almoſt wholly reduced; yet after ſome months it has ſwelled in the ſame manner again, and terminated in the ſame way. How far theſe tumors, and the matter they diſcharge, are really venereal when they appear firſt, may be doubtful; and it is difficult to determine this, for the patients in general have recourſe to medicine immediately; but in their ſubſequent attacks they are certainly not venereal, for they cure themſelves.

I have ſuſpected theſe tumors to be the ducts, or lacunæ of the glands of the urethra diſtended with mucus from the mouth of the duct being cloſed, in a manner ſimilar to what happens to the duct leading from the lachrymal ſack to the noſe; and in conſequence of the diſtention of the ducts or lacunæ, inflammation and ſuppuration come on, and ulceration takes place, which opens a way into the urethra; but this opening ſoon cloſes up and occaſions a return. Cowper's glands have been ſuſpected to inflame, and hardneſs and ſwelling have been felt externally very much in the ſituation of them, which coming to ſuppuration have produced conſiderable abſceſſes in the perinæum. Theſe tumors break either internally or externally, and ſometimes in both ways, making a new paſſage for the urine, called fiſtulæ in perinæo.

A ſoreneſs

A ſoreneſs is often felt by the patient all along the under ſide of the penis, owing to the inflamed ſtate of the urethra. This ſoreneſs often extends as far as the anus, and gives great pain, principally in erections; yet it is different from a chordee, the penis remaining ſtraight.

Erections are frequent in moſt gonorrhœas. Theſe, ariſing from the irritation at the time, often approach to a priapiſm, eſpecially when there is the abovementioned ſoreneſs, or when there is a chordee.

Priapiſms often threaten mortification in men; and I have ſeen an inſtance of it in a dog. The erection never ſubſided, and the glans penis could not be covered by the prepuce, from the ſwelling of the bulb. The penis mortified and dropped off; the bone in it was denuded, and an exfoliation followed. As opium is of great ſervice in priapiſm, there is reaſon to ſuppoſe the complaint is of a ſpaſmodic nature.

V. OF THE DISCHARGE.

The natural ſlimy diſcharge from the glands of the urethra is firſt changed from a fine tranſparent ropy ſecretion to a watery, whitiſh fluid; and the natural exhaling fluid of the urethra, which is intended for moiſtning its ſurface, and which appears to be of the ſame kind with that which lubricates cavities in general, becomes leſs tranſparent; and both theſe ſecretions becoming gradually thicker, aſſume more and more the qualities of common pus. In ſome caſes of gonorrhœa, the glands that produce the ſlime, which is ſecreted in conſequence of laſcivious ideas, are certainly not affected; for I have ſeen caſes, when after the paſſages had been cleared of the venereal matter by making water, the pure ſlime has flowed out of the end of the penis, on ſuch occaſions. When this matter is more in quantity than what lubricates the urethra, it is forced out of the orifice by the periſtaltic action of that canal, and appears externally.*

* That the urethra has conſiderable powers of action, is evident in a vaſt number of inſtances; and that action is principally from behind forwards. We find that a bougie may be worked out by the action of the urethra. This action, I believe, is often inverted, as in ſpaſmodic ſtranguries.

The

The matter of gonorrhœa often changes its colour and conſiſtence, which is owing to the diſpoſition of the parts which form it; ſometimes from a white to a yellow, and often to a greeniſh colour. Theſe changes depend on the increaſe or decreaſe of the inflammation, and not on the poiſonous quality of the matter itſelf; for any irritation on theſe parts, equal to that produced in a gonorrhœa, will produce the ſame appearances; and the changes in the colour of the matter are chiefly obſervable after it has been diſcharged upon a cloth and become dry. The appearance upon the cloth is of various hues; in the middle the matter is thicker or more in quantity, and it is therefore generally of a deeper colour; the circumference is paler, becauſe the watery or ſerous part of the matter has ſpread further, and at the outer edge of all it is darkeſt; this laſt appearance is owing to its being only water with a little ſlime, in which ſome of the tinge is ſuſpended, which when dry gives a tranſparency to the part, that takes off from the white colour of the linen. It is very probable that there is a ſmall extravaſation of red blood in all the caſes where the matter deviates from the common colour, and to this the different tinges ſeem to be owing. As this matter ariſes from a ſpecific inflammation, it has a greater tendency to putrefaction than common matter from a healthy ſore, and has often a ſmell ſeemingly peculiar to itſelf.

As it ſhould appear that there is hardly a ſufficient ſurface of the urethra inflamed to give the quantity of matter that is often produced, eſpecially when we conſider that the inflammation does in common go no further than two or three inches from the external orifice, it is natural to ſuppoſe that the diſcharge is produced from other parts, the office of which is to form mucus for natural purpoſes, and which are therefore more capable of producing a great quantity upon ſlight irritations, which hardly riſe to inflammation. Theſe parts, I have obſerved, are the glands of the urethra. In many caſes where the glands have not been after death ſo much ſwelled as to be felt externally; and where I have had an opportunity of examining the urethra of thoſe who have had this complaint upon them, I have always been able to diſcover, that the ducts or lacunæ leading from them have been loaded with matter, and more viſible than in the natural ſtate. I have obſerved too, that the formation of the matter is not confined to theſe glands

entirely;

entirely; for the inner ſurface of the urethra is commonly in ſuch a ſtate as not to ſuffer the urine to paſs without conſiderable pain; and therefore moſt probably this internal membrane is alſo affected in ſuch a manner as to ſecrete a matter.

This diſcharge in common caſes ſhould ſeem not to ariſe much further back in the urethra than where the pain is felt, although it is commonly believed that it comes from the whole of the canal, and even from Cowper's glands and the proſtate, and even what are called the veſiculæ ſeminales.* But the truth of this I very much doubt. My reaſons for ſuppoſing that it comes only from the ſurface where the pain is, are the following. If the matter aroſe from the whole ſurface of the urethra, and from the glands near the bladder, there would certainly be many other ſymptoms than do actually accur; for inſtance, if all the parts of the urethra beyond the bulb, or even in the bulb, were affected ſo as to ſecrete matter, that matter would be gradually ſqueezed into the bulb as the ſemen is, and from thence it would be thrown out by jerks; for we know that nothing can be in the bulbous part of the urethra, without ſtimulating it to action, eſpecially when in a ſtate of irritation and inflammation. In ſuch a ſtate we find that even a drop of urine is not allowed to reſt there; and alſo if an injection of warm water only is thrown into the urethra as far as the bulb, the muſculi acceleratores are uneaſy till they act, and throw it out. Hence it is natural to ſuppoſe that, if the membranous and bulbous part of the urethra, with the veſiculæ ſeminales, proſtate and Cowper's glands, aſſiſted in forming the matter, whenever it collected in the bulb it would probably be immediately thrown forwards by the muſcles abovementioned, and we ſhould be ſenſible of it every moment of the day. But ſuch ſymptoms are ſeldom obſerved. Sometimes indeed a ſpaſmodic contraction of theſe muſcles occurs, which may probably ariſe from this cauſe, though it is more frequently felt immediately after the urine is diſcharged.

* Thoſe bags are certainly not reſervoirs for the ſemen. The difference between the contents of them and the ſemen gave me the firſt ſuſpicion of this; and from ſeveral experiments on the human body, as alſo a comparative view of them in other animals, I have been able to prove that they are not.

When

When the inflammation is violent, it often happens that ſome of the veſſels of the urethra burſt, and a diſcharge of blood enſues, which is in greater quantity at the cloſe of voiding urine. This, however, happens at other times, and generally gives temporary eaſe. Sometimes this blood is in ſmall quantity, and only gives the matter a tinge; as I obſerved when treating of the colour of the diſcharge. The erections of the penis often ſtretch the part ſo much as to become a cauſe of an extravaſation of blood. This extravaſation generally increaſes the ſoreneſs at the time of emptying the bladder, and in ſuch a ſtate of parts the urethra is uſually ſore when preſſed; yet the bleeding diminiſhes the inflammation, and often gives eaſe.

VIII. OF THE CHORDEE.

The chordee appears to be *inflammatory* in ſome caſes, and *ſpaſmodic* in others; we ſhall treat firſt of the inflammatory chordee.

When the inflammation is not confined merely to the ſurface of the urethra and its glands, but goes deeper and affects the reticular membrane, it produces in it an extravaſation of coagulable lymph, as in the adheſive inflammation, which uniting the cells together, deſtroys the power of diſtention of the corpus ſpongioſum urethræ, and makes it unequal in this reſpect to the corpora cavernoſa penis, and therefore a curvature takes place in the time of erection, which is called a chordee. The curvature is generally in the lower part of the penis, ariſing from the cells of the corpus ſpongioſum urethræ having their ſides united by adheſions. Beſides this effect of inflammation, when the cordee is violent, the inner membrane is, I ſuppoſe, ſo much upon the ſtretch, as to be in ſome degree torn, which frequently cauſes a profuſe bleeding from the urethra that often relieves the patient, and even ſometimes proves the cure. As chordee ariſes from a greater degree of inflammation than common. It is an effect which may, and often does, remain when all infection is gone, being merely a conſequence of the adheſive inflammation.

IX. OF THE MANNER IN WHICH THE INFLAMMATION ATTACKS THE URETHRA.

In what manner the diſeaſe extends itſelf to the urethra, is a queſtion not yet abſolutely determined. I ſuſpect that it is communicated, or creeps along from the glans to the urethra, or at leaſt from the beginning or lips of the urethra to its inner ſurface; becauſe it is impoſſible to conceive, that any of the venereal matter from the woman can get into the canal during coition, although the contrary is commonly aſſerted. It is impoſſible at leaſt that it can get ſo far as the common ſeat of the diſeaſe, or into thoſe parts of the urethra where it very often exiſts, that is, through the whole length of the canal. The following caſe amounts almoſt to a proof of this opinion.

A gentleman, on whoſe veracity I have an entire confidence, when in Germany, where he had not lain with a woman for many weeks, ſat in a neceſſary-houſe ſome time. Upon ariſing he found ſomething that ſeemed to give the glans penis a little ſharp pull, and he found a ſmall bit of the plaſter of the neceſſary-houſe ſticking to it. He paid no further attention to it at that time than merely to remove what ſtuck to his penis; but five or ſix days after, he obſerved the ſymptoms of a clap, which proved a pretty ſevere one. The only way of accounting for this is, that ſome perſon who had a clap had been there before him, and had left ſome venereal matter upon this place, and that the penis had remained in contact with it a ſufficient time for the matter to dry.

When the diſeaſe attacks the urethra it ſeldom extends further than an inch and a half, or two inches at moſt, within the orifice, which diſtance appears to be truly ſpecific, and what I have called the ſpecific extent of the inflammation.*

* It is to be here remarked, that ſpecific diſeaſes, among which I ſhall reckon ſuch as ariſe from morbid poiſons, have their ſpecific diſtance or extent as one of their properties; but this can only take place where the conſtitution is not ſuſceptible of eryſipelas, or any other uncommon mode of action; for where there is an eryſipelatous diſpoſition no bounds are ſet to the inflammation.

As

As the cauſe of a gonorrhœa is commonly an inflammation, it is accompanied with pain and the formation of matter. In ſuch a ſtate neither the ſenſations of the patient, nor the actions of the parts themſelves are confined to the real ſeat of the diſeaſe. In conſequence of the neighbouring parts ſympathiſing, a variety of ſymptoms are produced, many of which do not exceed what might ariſe from an irritable ſtate; an uneaſineſs partaking of ſoreneſs and pain, and a kind of wearineſs, are every where felt about the pelvis: the ſcrotum, teſticles, perinæum, anus and hips, become diſagreeably ſenſible to the patient; and the teſticles often require being ſuſpended; and ſo irritable are they indeed in ſuch caſes, that the leaſt accident or even exerciſe, which would have no ſuch effect at another time, will make them ſwell. The glands of the groin are often affected ſympathetically, and even ſwell a little, but do not come to ſuppuration. When they inflame from the abſorption of matter, they in general ſuppurate. I have ſeen caſes where the irritation has extended ſo far as to affect with real pain the thighs, the buttocks, and the abdominal muſcles, ſo that the patient has been obliged to lie quiet in an horizontal poſition. The pain has at times been very acute, and the parts have been very ſore to the touch; they have even ſwelled, but the ſwelling has not been of the inflammatory kind; for notwithſtanding a viſible fulneſs, the parts have been rather ſoft. I knew one gentleman who never had a gonorrhœa, but that he was immediately ſeized univerſally with rheumatic pains. This had happened to him ſeveral times. The blood at ſuch times is generally free from the inflammatory appearance, and therefore we may ſuppoſe that the conſtitution is but little affected.

When the gonorrhœa (excluſive of the affections ariſing from ſympathy) is not more violent than I have deſcribed, it may be called *common* or *ſimple* venereal gonorrhœa; but if the patient is very ſuſceptible of ſuch irritation, or of any other mode of action which may accompany the venereal, then the ſymptoms are in proportion more violent. In ſuch circumſtances we ſometimes find the irritation and inflammation exceed the ſpecific diſtance, and extend through the whole of the urethra. There is often alſo a conſiderable degree of pain in the perinæum, and a frequent, though not a conſtant, ſymptom is a ſpaſmodic contraction of the acceleratores urinæ, which is always attended with contractions of the erectores muſcles. Whether theſe

ſpaſms ariſe from a ſecretion of matter, which being collected in the bulbous part of the urethra produces uneaſineſs, and excites contractions in order to its own expulſion, like the laſt drops of urine, I have not been able to determine. I have ſeen ſuch ſpaſms in the time of making water, from the urine irritating the parts in its paſſage through the urethra, and throwing the muſculi acceleratores into contractions, ſo that the water has come by jerks. This kind of inflammation ſometimes is conſiderable, goes deep into the cellular membrane, and produces tumefaction without any other effect. In other caſes it goes on to ſuppuration, often becoming one of the cauſes of fiſtulæ in perinæo. I have ſometimes, as I have already obſerved, ſuſpected Cowper's glands to be the ſeat of ſuch ſuppurations; for I have obſerved externally, circumſcribed ſwellings in the ſituation of thoſe glands. The ſmall glands likewiſe of the bulbous part of the urethra may be affected in a ſimilar manner; and the irritation is often extended even to the bladder itſelf.

When the bladder is affected it becomes more ſuſceptible of every kind of irritation, ſo that very diſagreeable ſymptoms are often produced; it will not allow of the uſual diſtention, and therefore the patient cannot retain his water the ordinary time, and the moment the deſire of making water takes place, he is obliged inſtantly to make it with violent pain in the bladder, and ſtill more in the glans penis, exactly ſimilar to what happens in a fit of the ſtone. If the bladder be not allowed to diſcharge its contents immediately, the pain becomes almoſt intolerable; and even when the water is evacuated there remains for ſome time a conſiderable pain, both in the bladder and glans; becauſe the very contraction of the muſcular coat of the bladder becomes a cauſe of pain.

The ureters, and even the kidnies ſometimes ſympathiſe, when the bladder is either very much inflamed, or under a conſiderable degree of irritation; however this but rarely happens. I have even reaſon to ſuſpect that the irritation may be communicated to the peritonæum by means of the vas deferens. This ſuſpicion receives ſome confirmation from the following hiſtory. A gentleman had a gonorrhœa which was treated in the antiphlogiſtic way. The diſcharge being in ſome degree ſtopped, a tenſion came upon the lower part of the belly on the right ſide, juſt above Poupart's ligament,

ligament, but rather nearer to the ilium. There was hardneſs and ſoreneſs to the touch, which ſoreneſs ſpread over the whole belly, producing rigors every third day, with a low pulſe, which to me indicated a peritonæal inflammation, ariſing, in my opinion, from the vas deferens of that ſide being affected in its courſe through the belly and pelvis.

When the inflammation, or perhaps only the irritation, runs along the whole ſurface of the urethra, attacks the bladder, and even extends to the ureters and the kidnies, ſo as to cauſe a diſagreeable ſenſation in all theſe parts, the diſeaſe is generally very violent, and, I ſuſpect, is ſomething of the eryſipelatous kind. At leaſt it ſhows an irritable ſympathiſing habit.

This diſeaſe ſometimes produces very uncommon ſymptoms. A gentleman had a gonorrhœa; and, when the inflammatory ſymptoms were abating, the urethra loſt both the involuntary and voluntary powers of retaining the urine. His water came away involuntarily; nor could he ſtop it. I adviſed him to do nothing, and to wait for ſome time, as probably the method of cure might be more diſagreeable than the diſeaſe itſelf, although it was very troubleſome to him when in company. The complaint gradually leſſened, and in time went entirely off.

X. OF THE SWELLED TESTICLE.

A very common ſymptom attending a gonorrhœa is a ſwelling of the teſticle. This, I believe, like the affection of the bladder, and many of the ſymptoms mentioned before, is only ſympathetical, and not to be reckoned venereal, becauſe the ſame ſymptoms follow every kind of irritation on the urethra, whether produced by ſtrictures, injections, or bougies. It may be obſerved here, that thoſe ſymptoms are not ſimilar to the actions ariſing from the application of the true venereal matter, whether by abſorption or otherwiſe; for they ſeldom or ever ſuppurate; and when ſuppuration happens, the matter produced is not venereal.

The teſticles ſeem as it were, in many caſes, rather to be acting for the urethra, than for themſelves, which is an idea applicable to all ſympathies. Thus the ſwelling and inflammation appears ſuddenly, and as ſuddenly diſappears,

diſappears, or in a few minutes goes from one teſticle to the other; the affection depending upon the ſtate of the urethra, and not at all upon the part itſelf. A part however of the teſticle, the epididymis, aſſumes all the characters of inflammation, remaining ſwelled even for a conſiderable time after the inflammation has ſubſided.

The firſt appearance of ſwelling in the teſticle is generally a ſoft pulpy fulneſs of the body of the teſticle, which is tender to the touch; this increaſes to a hard ſwelling, accompanied with conſiderable pain. The hardeſt part is generally the epididymis, and principally that portion of it which is at the lower end of the teſticle, as may be diſtinctly felt. The hardneſs and ſwelling, however, often run the whole length of that body, and form a knob at the upper part. The ſpermatic chord is likewiſe often affected, and more eſpecially the vas deferens, which is thickened and ſore to the touch. The veins of the teſticle ſometimes become varicoſe. I have ſeen ſuch a ſtate of veins accompany a ſwelling of the teſticle in two inſtances. A pain in the ſmall of the back generally attends inflammations of the teſticle of all kinds, with a ſenſe of weakneſs of the loins and pelvis. The bowels generally ſympathiſe with moſt complaints of the teſticle, in ſome by cholicky pains, in others by an uncommon ſenſation both in the ſtomach and inteſtines. Sickneſs is a common ſymptom, and even vomiting; the powers of digeſtion by this means are impaired, and a diſpoſition for the accumulation of air takes place, which is often very troubleſome. Here we have from the teſticles a chain of ſympathies, as we had in conſequence of the irritation running along the whole urinary paſſages; firſt the teſticle is affected from the urethra, then the ſpermatic chord, the loins, inteſtines, ſtomach, and from thence in ſome meaſure the whole body.

In a caſe of ſwelled teſticle I have known the buttocks ſwell, but the ſwelling was not of the inflammatory kind, and in making water pain was felt in that part. Whether this ſymptom aroſe from the ſwelling of the teſticle, or from the ſame common cauſe, that is the gonorrhœa, is not eaſily determined; although the latter ſuppoſition is the moſt probable.

It has been aſſerted, but without proof, that in caſes of ſwelled teſticles in conſequence of a gonorrhœa, it is not the teſticle that ſwells, but the epididymis.

epididymis. The truth is, it is both the one and the other. Any man that is accuſtomed to diſtinguiſh between a ſwelling of the whole teſticle, and that of the epididymis only, will immediately be ſenſible, that in the hernia humoralis the whole teſticle is ſwelled. The teſticle aſſumes the ſame ſhape that it does from other cauſes, where we know from being obliged to remove it, that the whole has ſwelled. The pain is in every part of the teſticle. I have ſeen ſuch ſwellings ſuppurate on the forepart, and have known ſeveral inſtances of adheſions between the tunica albuginea and vaginalis, from ſuch cauſes. This has only been diſcovered after death, or in the operation for a partial hydrocele. Such changes could not have taken place if the body of the teſticle had not been in a ſtate of inflammation. This inflammation of the teſticle moſt probably ariſes from its ſympathiſing with the urethra, and in many caſes it would appear to ariſe from what is underſtood by a tranſlation of the irritation from the urethra to the teſticle. Thus a ſwelling of the teſticle coming on ſhall remove the pain in making water, and ſuſpend the diſcharge; which ſhall not return till the ſwelling of the teſticle begin to ſubſide; or the irritation in the urethra firſt ceaſing ſhall produce a ſwelling of the teſticle, which ſhall continue till the pain and diſcharge return; thus rendering it doubtful, which is the cauſe and which the effect. I have nevertheleſs known caſes, where the teſticle has ſwelled, and yet the diſcharge has become more violent; nay I have ſeen inſtances where a ſwelling has come on after the diſcharge has ceaſed; yet the diſcharge has returned with violence, and remained as long as the ſwelling of the teſticle. Sometimes the epididymis only is affected, ſometimes the vas deferens, and at other times only the ſpermatic chord, propucing varicoſe veins. No reaſon can be aſſigned why one of theſe parts is affected more than another, and indeed the immediate cauſe in all is as yet unknown. For although an action in the urethra is the remote cauſe, yet it is ſtill impoſſible to ſay whether it be the ceſſation of that action that is the cauſe of the ſwelling in the teſticle, or the ſwelling in the teſticle the cauſe of the ceſſation. It is deſcribed as ariſing from an irritation taking place in the mouths of the vaſa deferentia. Were this the cauſe, it ought in general to affect both teſticles at the ſame time: but I have ſeen this complaint happen as often where the inflammation has gone no further

further back in the urethra than about an inch and a half, or two inches, as where it has extended further; and the circumſtance of the ſwelling ſhifting ſuddenly from one teſticle to the other, ſhows it to ariſe from ſome other principle in the animal œconomy.

A ſtrangury often attends ſuch caſes of ſympathy, and more frequently when the running ſtops, than when it is continued along with the ſwelling of the teſticle. Indeed any ſudden ſtopping of the diſcharge gives a tendency to a ſtrangury.

As ſingular a circumſtance as any reſpecting the ſwelling of the teſticle is, that it does not always come on when the inflammation in the urethra is at the height. I think it oftener happens when the irritation in the urethra is going off; and ſometimes even after it has entirely ceaſed, and when the patient conceives himſelf to be quite well.

I may be allowed to remark, that ſwellings in the teſticle in conſequence of venereal irritation in the urethra, ſubject it to a ſuſpicion that every ſwelling of this part is venereal: but from what I ſaid of its nature when it ariſes from a venereal cauſe, which was that it is owing to ſympathy only, and from what I ſhall now ſay, that it is never affected with the venereal diſeaſe either local or conſtitutional, as far as my obſervation goes, it is to be inferred that ſuch ſuſpicions are always ill founded. This, perhaps, is an inference to which few will ſubſcribe.

I have known the gout produce a ſwelling in the teſticle of the inflammatory kind, and therefore ſimilar to the ſympathetic ſwelling from a venereal cauſe, having many of its characters. Injuries done to the teſticle produce ſwellings: but they are different from thoſe abovementioned, being more permanent, having the diſeaſe or cauſe in the part itſelf. Cancers, and the ſcrofula produce ſwellings of the teſticle; but theſe are generally ſlow in their progreſs, and not at all ſimilar to thoſe ariſing from an irritation in the urethra.

XI. OF

XI. OF THE SWELLINGS OF THE GLANDS FROM SYMPATHY.

SINCE our knowledge of the manner in which ſubſtances get into the circulation, and our having learned that many ſubſtances, eſpecially poiſons, in their courſe to the circulation, irritate the abſorbent glands to inflammation and tumefaction, we might naturally ſuppoſe ſuch ſwellings, accompanying complaints in the urethra attended with a diſcharge, to be owing to the abſorption of that matter, and therefore if it be a venereal diſcharge, that they muſt alſo be venereal. But we muſt not be too haſty in drawing this concluſion: for we know that the glands will ſometimes ſwell from an irritation at the origin of the lymphatics, where no abſorption could poſſibly have taken place. They often ſwell and become painful upon the commencement of inflammation, before any ſuppuration has taken place, and ſubſide upon the coming on of ſuppuration; becauſe when the ſuppuration begins, the inflammation abates. I have known a prick in the finger with a clean ſewing-needle, produce a red ſtreak all up the fore-arm, pain along the inſide of the biceps muſcle, a ſwelling of the lymphatic gland above the inner condyle of the humerus, and alſo of the glands of the arm-pit, immediately followed by ſickneſs and a rigor, all which, however, have ſoon gone off. As it ſhould therefore appear, that the abſorbent ſyſtem is capable of being affected as well by irritation, as by the abſorption of matter, in all diſeaſes of this ſyſtem, ariſing from local injuries attended with matter, one muſt always have theſe two cauſes in view, and endeavour, if poſſible, to diſtinguiſh from which the preſent affection proceeds. For in thoſe ariſing from an irritated ſurface in conſequence of poiſon, eſpecially the venereal, it is of conſiderable conſequence to be able to ſay from which of the two it ariſes; ſince it ſometimes happens, although but ſeldom, that the glands of the groin are affected in a common gonorrhœa with the appearance of beginning buboes, but which I ſuſpect to be ſimilar to the ſwelling of the teſticle, that is, merely ſympathetic. The pain they give is but very trifling, when compared to that of the true vene-

real ſwellings ariſing from the abſorption of matter; and they ſeldom ſuppurate. However there are ſwellings of theſe glands from actual abſorption of matter in gonorrhœa, and which conſequently are truly venereal; and as it is poſſible to have ſuch, they are always to be ſuſpected. As they have ſometimes ariſen upon a ceſſation of the irritation in the urethra, ſimilar to the ſwelling of the teſticle, it has been ſuppoſed that the matter was driven as it were into them by unſkilful treatment. From our acquaintance with the abſorbing ſyſtem, we know that the matter can go that way; but we alſo know, that we have no method of driving it that way; and if we had, there is no reaſon why more ſhould not be formed in the urethra. This therefore does not account for the ceſſation of ſecretion of matter in that part.

It is difficult to ſay, what is the nature of thoſe ſympathetic diſeaſes. They are not venereal, for they ſubſide by the common treatment of inflammation without the uſe of mercury; and I have known an inſtance of a ſwelled teſticle from a venereal gonorrhœa, that ſuppurated, and was treated by my advice as a common ſuppuration, and healed without a grain of mercury being given. Neither can they be called truly inflammatory, having rarely any of the true characters of inflammation, ſuch as thickening of the parts, ſymptomatic fever, or ſizy blood, except in ſwellings of the teſticle and glands. The ſwelling of the teſticle has ſeveral peculiarities attending it; it is often very quick in its increaſe, and not being of the true inflammatory diſpoſition, it requires leſs time for the removal of the inflammation; but even where it appears to have more of the true inflammatory action, we find that the removal of the inflammation and tumefaction take place more rapidly than when proceeding from other cauſes. A ſwelled teſticle in conſequence of the radical cure of the hydrocele does not ſubſide after inflammation is gone, in as many weeks; as the ſwelled teſticle in conſequence of its ſympathy with other parts, does in days; and probably the reaſon of this is, that it ariſes from ſympathy: for an inflammation ariſing from real diſeaſe in a part, or from an external injury, as in the hydrocele, muſt always laſt either till the diſeaſe be removed, or the injury repaired; but that from ſympathy will vary as the cauſe varies, which may happen very quickly; for we find a teſticle ſwell in a few minutes, and in as little time

ſubſide;

ſubſide; and alſo the ſwelling move ſuddenly from one teſticle to the other. Theſe ſympathies are often peculiar to conſtitutions, and even to temporary conſtitutions, in ſo much as to be in ſome degree epidemic; for there is often ſuch an influence in the atmoſphere as prediſpoſes the body to this kind of irritation; and bodies ſo prediſpoſed require only the immediate cauſe to produce the effect.

XII. OF THE DISEASES OF THE LYMPHATICS IN A GONORRHŒA.

ANOTHER ſymptom, which ſometimes takes place in gonorrhœa, is a hard chord leading from the prepuce, along the back of the penis, and often directing its courſe to one of the groins, and affecting the glands. There is moſt commonly a ſwelling in the prepuce at the part where the chord takes its riſe. This happens ſometimes when there is an excoriation and diſcharge from the prepuce or glans, which may be called a venereal gonorrhœa of theſe parts. Both the ſwelling in the groin, and the hard chord, we have reaſon to ſuppoſe ariſe from the abſorption of pus, and therefore that they are the firſt ſteps towards a lues venerea; but as that form of the diſeaſe ſeldom happens from a gonorrhœa, I ſhall not take any further notice of it in this place. However, I may remark, that from this obſervation of the lues venerea being ſeldom produced from a gonorrhœa, it ſhould appear that a whole ſurface, or one only inflamed, does not readily admit of the abſorption of the venereal poiſon; and therefore, although the venereal matter lies for many weeks in the paſſage, and over the whole glans, it ſeldom happens that any abſorption takes place. I have ſeen a caſe, where blood has been diſcharged from the urethra, and the above-mentioned ſymptoms have come on. I at firſt ſuſpected that the abſorption had taken place where the veſſel gave way. But as this ſymptom rarely happens, even where there has been a conſiderable diſcharge of blood, I am inclined to think that wounds are alſo bad abſorbing ſurfaces, eſpecially when I conſider that few morbid poiſons are abſorbed from wounds.

XIII. SHORT RECAPITULATION OF THE VARIETIES IN THE SYMPTOMS.

FROM what has been advanced above, it muſt appear that the variety of ſymptoms in a gonorrhœa, and the difference of them in different caſes, are almoſt endleſs. I ſhall now recapitulate a few of the moſt material or common varieties. The diſcharge often appears without any pain; and the coming on of the pain is not at any ſtated time after the appearance of the diſcharge. There is often no pain at all, although the diſcharge be conſiderable in quantity, and of a bad appearance. The pain often goes off, while the diſcharge continues, and will ſometimes return again. An itching in ſome caſes is felt for a conſiderable time, which ſometimes is ſucceeded by pain; though in many caſes it continues to the end of the diſeaſe. On the other hand, the pain is often troubleſome, and conſiderable even when the diſcharge is trifling or none at all. In general, the inflammation in the urethra does not extend beyond an inch or two from the orifice; ſometimes it runs all along the urethra to the bladder, and even to the kidnies, and in ſome caſes ſpreads into the ſubſtance of the urethra, producing a chordee. The glands of the urethra inflame, and often ſuppurate; and I ſuſpect that Cowper's glands ſometimes do the ſame. The neighbouring parts ſympathiſe, as the glands of the groin, the teſticle, the loins, and pubes, with the upper parts of the thighs and abdominal muſcles. Sometimes the diſeaſe appears ſoon after the application of the poiſon, as in a few hours, at other times not till after ſix weeks. It is often not poſſible to determine whether it is venereal, or only an accidental diſcharge ariſing from ſome unknown cauſe.

It may not be improper to mention here, that I have ſeen a chancre on the prepuce produce a pain in the urethra in making water; which moſt probably depended upon a ſympathy ſimilar to that by which the application of venereal matter to the glans produces a diſcharge from the urethra, as was obſerved above. If the application of venereal matter to the glans can produce a diſcharge from the urethra, it is poſſible that any acrid mat-

ter,

ter, though not venereal, may have a ſimilar effect. The diſcharge from the vagina, in caſes of what is called fluor albus, is ſometimes extremely irritating, in ſo much as to excoriate the labia and thighs; and the following hiſtory ſhows that it may ſometimes produce effects ſimilar to venereal matter.

Mr. and Mrs. —— have been married theſe twenty years and upwards. She has for many years paſt been at times troubled with the flour albus. When he has connection with her at ſuch times, it generally, although not always, produced an excoriation of the glans and prepuce, and a conſiderable diſcharge from the urethra, attended with a ſlight pain. Theſe ſymptoms commonly take a conſiderable time before they go off, whether treated as a gonorrhœa or as a weakneſs. Is this a new poiſon? And does it go no further becauſe the connection takes place only between two? What would be the conſequence, if ſhe were to have connection with other men, and theſe with other women? Such caſes, as far as I have ſeen, have only been in form of a gonorrhœa. They have not produced ſores in the parts; nor, as far as I know, do they ever produce conſtitutional diſeaſes.

CHAPTER

CHAPTER II.

OF THE GONORRHŒA IN WOMEN.

THE venereal diſeaſe in the form of gonorrhœa in women, is not ſo complicated as in men; the parts affected are more ſimple, and fewer in number. But it is not ſo eaſily known in them as it is in men, becauſe the parts commonly affected in women are very ſubject to a diſeaſe reſembling the gonorrhœa, called *fluor albus*; and the diſtinguiſhing marks, if there are any, have not yet been completely aſcertained. A diſcharge ſimply from theſe parts in women, is leſs a proof of the exiſtence of the venereal infection than even a diſcharge without pain in men; therefore in general little or no attention is paid to it by the patient herſelf, and we often find the venereal virus formed in thoſe parts without any increaſe of the natural diſcharge. The kind of matter gives us no aſſiſtance in diſtinguiſhing the two diſeaſes; for it often happens that the diſcharge in the fluor albus puts on all the appearances of the venereal matter; and an increaſe of the diſcharge is no better mark by which we can diſtinguiſh the one from the other. Pain, or any peculiarity in the ſenſations of the parts, is not a neceſſary attendant upon this complaint in women, therefore not to be looked for as a diſtinguiſhing ſymptom.

The appearance of the parts often give us but little information, for I have frequently examined the parts of thoſe who confeſſed all the ſymptoms; ſuch as increaſe of diſcharge, pain in making water, ſoreneſs in walking, or when they were touched, yet I could ſee no difference between theſe and ſound parts. I know of no other way of judging in caſes where there are no ſymptoms ſenſible to the perſon herſelf, or where the patient has a mind to deny having any uncommon ſymptoms, but from the circumſtances preceding the diſcharge; ſuch as her having been connected with men ſuppoſed to be unſound, or her being able to give it to others; which laſt circumſtance being derived from the teſtimony of another perſon, is not always to be truſted

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to, for very obvious reaſons. Thus a woman may have this ſpecies of the venereal diſeaſe without knowing it herſelf, or without the ſurgeon being able to diſcover it, even on inſpection. It may appear very ſtrange, that a diſeaſe which is ſo violent and well marked in men ſhould be ſo obſcure in women: but when we conſider that this poiſon generally produces ſymptoms according to the nature of the parts affected by it, it becomes an eaſy matter to account in ſome meaſure for this difference.

When we attend to the manner in which this diſeaſe is contracted by women, it is evident that it muſt principally attack the vagina, a part that is not endowed with much ſenſation, or action of any kind. While it is confined to the vagina it may be compared to the ſame diſeaſe on the glans penis in men. In many caſes, however, it extends much further, and becomes the cauſe of diſagreeable feelings, producing a conſiderable ſoreneſs in all the parts formed for ſenſation, ſuch as the inſide of the labia, nymphæ, clitoris, carunculæ myrtiformes, the orifice of the meatus urinarius, and often affecting that canal in its whole length. Thoſe parts are ſo ſore in ſome caſes, as not to bear being touched; the perſon can hardly walk; the urine gives pain in its paſſage through the urethra, and when it waſhes the abovementioned parts, which can hardly be avoided. Such ſymptoms are not much increaſed at one time more than another, excepting at the time of making wat r, and then principally in thoſe who have the urethra affected; for as theſe parts are leſs expoſed to circumſtances of change, the increaſed irritation ariſing from ſuch change of parts muſt neceſſarily in this ſex be leſs. But in men the urethra, which is the part moſt commonly affected, has great ſenſibility, is capable of violent inflammation, is often diſtended with a ſtimulating fluid, and the body of the penis, urethra, and glans, ſtretching the paſſage with erections, always produce an increaſe of the ſymptoms, eſpecially of the pain.

But as this diſeaſe frequently attacks parts more ſenſible than the vagina, and which are more ſuſceptible of inflammation, as has been obſerved, under ſuch circumſtances women have nearly the ſame ſymptoms as men; a fulneſs about the parts, almoſt like an inflamed tonſil, a diſcharge from the urethra, violent pain in making water, and great uneaſineſs in ſitting from preſſure on thoſe parts.

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The bladder ſometimes ſympathiſes, producing the ſame ſymptoms as in men, and it is probable that the irritation may be communicated even to the kidnies. It has been aſſerted that the ovaria are ſometimes affected in a ſimilar manner to the teſticles in men. I have never ſeen a caſe of this kind, and I ſhould very much doubt the poſſibility of its exiſtence; for we have no inſtance in other diſeaſes of the ovaria ſympathiſing with thoſe parts, or at leaſt producing ſuch ſymptoms as would enable us to determine that they did. That there do, however, uncommon ſymptoms now and then occur, ſhould appear from the following caſe.

A lady had all the ſymptoms of a venereal gonorrhœa, ſuch as a diſcharge, pain and frequency in making water, or rather a continued inclination to void it, and a heavineſs approaching to pain about the hips and loins. The uncommon ſymptom in this caſe was great flatulency in the ſtomach and bowels; this laſt ſymptom was moſt probably a ſympathy with the uterus. There may poſſibly be ſympathies therefore with the ovaria.

The inflammation frequently goes deeper than the ſurface of the parts; often running along the ducts of the glands, and affecting the glands themſelves ſo as to produce hard ſwellings under the ſurface of the inſide of the labia, which ſometimes ſuppurate, forming ſmall abſceſſes, opening near the orifice of the vagina. Theſe are ſimilar to the inflammations and ſuppurations of the glands in the urethra in men. The different ſurfaces, or parts which the diſeaſe attacks, make no diſtinction in the diſeaſe itſelf. It is immaterial whether it is a large or ſmall ſurface: in one caſe the parts are more ſuſceptible of this irritation than in another; but the method of cure may be more complicated.

It ſometimes happens, that the venereal matter from the vagina runs down the perinæum to the anus, producing a gonorrhœa or chancres there.

How far the gonorrhœa in women is capable of wearing itſelf out, as in men, I cannot abſolutely determine; but am much inclined to believe that it may; for I have known many women who have got rid of a violent gonorrhœa without having uſed any means to cure it; and indeed the great variety of methods of cure employed in ſuch caſes, all of which cannot poſſibly do good, though the patients get well, ſeems to confirm this opinion. One circumſtance, which appears as curious as any, is the ſeeming

continuance

continuance of the diſeaſe in the vagina for years; at leaſt we have reaſon to believe this, as far as the teſtimony of patients can be relied on; and this long continuance of it, without wearing itſelf out as it does ſometimes in men, is probably owing to its being leſs violent in the vagina.

I. OF THE PROOFS OF A WOMAN HAVING THIS DISEASE.

It may be aſked, what proof there is of a woman having a gonorrhœa when ſhe is not ſenſible of having any one ſymptom of the diſeaſe, and none appears to the ſurgeon on examination? In ſuch a caſe the only thing we can depend upon is, the teſtimony of thoſe whom we look upon as men of veracity. Such men have aſſerted that they have been affected by a women in the ſituation abovedeſcribed, having had no connection for ſome months with any other woman. From this evidence it is reaſonable to ſuppoſe, that the diſeaſe has been caught from ſuch women; and it ſhould ſeem to put it beyond a doubt, when the ſame woman gives the diſeaſe in this way to more than one man. The caſe of the woman giving the diſeaſe to two men alternately at an interval of twelve months each time,* which gives a ſpace of at leaſt two years for the continuance of the diſeaſe, proves that its communication is almoſt the only criterion of its preſence. The caſe too of the young woman at the Magdalen hoſpital,† confirms the ſame opinion. Yet all this does not amount to an abſolute proof; for a ſound woman may have had a connection with a man who had a gonorrhœa, or a man with chancres, and ſoon after, that is perhaps within forty-eight hours, ſhe may have admitted the embraces of a ſound man. In ſuch a caſe it is very poſſible that he may receive the infection from that matter which was lodged in the vagina by the unſound man; and yet the woman may not catch the diſeaſe; for the matter may be waſhed away before it irritates the vagina; and this woman may be ſuſpected of having a gonorrhœa, and apparently with great juſtice. A repetition of theſe circumſtances may be the cauſe of many women appearing to have the diſeaſe for years,

* See page 37. † See page 38.

without really having it. Again, I have ſeen a bubo come on at a time when the patient was not ſenſible of any diſorder till that appeared. This, one would think, is an abſolute proof, that there may be a gonorrhœa, and the patient not be conſcious of it; but even this is not altogether without fallacy; for there may have been an abſorption of venereal matter depoſited in the vagina by ſome infected man, which may not have produced any irritation in that part.

CHAPTER

CHAPTER III.

OF THE EFFECTS OF THE GONORRHOEA ON THE CONSTITUTION IN BOTH SEXES.

THE diſeaſe I have been deſcribing, both in men and women, is local, and generally confined to the part affected; yet it ſometimes happens that the whole conſtitution is more or leſs affected by it. Thus we find, before there is any appearance of matter from the parts, that ſome patients complain of ſlight rigors: theſe are moſt conſiderable when the ſuppuration is late in taking place. A remarkable inſtance of this happened in a gentleman who had the infection twice,* the firſt time he aſſured me, that it was ſix weeks between the time it was poſſible for him to have contracted the diſeaſe, and its appearance; and that for a conſiderable part of that time he had often been indiſpoſed with ſlight rigors, attended with a little fever and reſtleſſneſs, for which he could aſſign no cauſe; nor was he relieved by the uſual remedies preſcribed in ſuch caſes. A violent gonorrhœa came on, and theſe ſymptoms went off, which appeared to me to explain the caſe. The ſecond time it was a month from the time of infection before the gonorrhœa appeared, and for ſome weeks of that time he was ſubject to a ſimilar indiſpoſition, which went off as before, when the running came on. Here it would appear that we have ſomething of a ſuppurative fever, which, perhaps, often happens in this diſeaſe; but the inflammation being ſmall, and the fever therefore inconſiderable, it is commonly little noticed by the patient. The above gentleman not ſuſpecting any ſuch complaint in the firſt attack, had connection with his wife as uſual, and was afraid, when the diſeaſe appeared, that he might have given it to her; but ſhe never complained, which is a ſtrong circumſtance in confirmation of the principle laid down above, that it cannot be communicated but by matter.

* The caſe is mentioned before, page 39.

Theſe conſtitutional ſympathies from local ſpecific diſeaſes, are the ſame from whatever cauſe they proceed; they are the ſympathetic effects of irritation or of violence; and it is probable that all remote ſympathies are, at leaſt in this reſpect, ſimilar: for if they were ſimilar to their cauſe, it is moſt probable that they would produce in the conſtitution the ſame kind of diſeaſe that gave riſe to them.

CHAPTER

CHAPTER IV.

OF THE CURE OF THE GONORRHOEA.

FROM the idea, which I have endeavoured to give of the venereal diſeaſe in general, namely that, in whatever form it appears, it always ariſes from the ſame cauſe, it might be ſuppoſed, that, ſince we have a ſpecific for ſome of the forms of the diſeaſe, this ſpecific ſhould be a certain cure for every one; and therefore that it muſt be no difficult taſk to cure the diſeaſe when in the form of inflammation and ſuppuration upon the ſecreting ſurfaces of any of the ducts or outlets of the body: but from experience we find the gonorrhœa the moſt variable in its ſymptoms, while under a cure; and the moſt uncertain, with reſpect to its cure, of any of the forms of this diſeaſe; many caſes terminating in a week, while others continue for months, under the ſame treatment.

The only curative object is, to deſtroy the diſpoſition and ſpecific mode of action in the ſolids of the parts, and as that is changed, the poiſonous quality of the matter produced will alſo be deſtroyed. This effects the cure of the diſeaſe, but not always of the conſequences.

I have already obſerved, that this form of the diſeaſe is not capable of being continued beyond a certain time in any conſtitution; and that in caſes where it is violent, or laſted long, it is owing to the parts being very ſuſceptible of ſuch irritation, and readily retaining it. As we have no ſpecific medicine for the gonorrhœa, it is fortunate that time alone will effect a cure: it is therefore very reaſonable to ſuppoſe, that every ſuch inflammation ceaſes of itſelf; yet although this appears to be nearly the truth, it is worthy of conſideration, whether medicine can be of any ſervice in this form of the diſeaſe. I am inclined to believe it is very ſeldom of any kind of uſe, perhaps not once in ten caſes; but even this would be of ſome conſequence, if we could diſtinguiſh the caſes where it is of ſervice, from thoſe where it is not. Upon the idea that every gonorrhœa cures itſelf, I gave

certain

certain patients pills of bread, which were taken with great regularity. The patients always got well, but ſome of them, I believe, not ſo ſoon as they would have done, had the artificial methods of cure been employed.

The methods of cure hitherto recommended, and ſtill followed by different people of the profeſſion, are of two kinds. They conſiſt either of internal remedies, or local applications; but in whichſoever of theſe two ways this diſeaſe is to be treated, we are always to pay more attention to the nature of the conſtitution, or to any attending diſeaſe in the parts themſelves, or parts connected with them, than to the diſeaſe itſelf.

The nature of the conſtitution is principally to be learned from the local effects; for the local effects of this poiſon are ſo different in different people as to require great variety of treatment; but this has been too little attended to, every one endeavouring to attack the immediate ſymptoms as if he had a ſpecific for a gonorrhœa.

The firſt thing to be conſidered is, the nature of the inflammation, whether violent or mild, whether common or irritable; yet even when this is aſcertained, we have not in all caſes the cure in our power; for I have already obſerved, that ſome people are very ſuſceptible of this irritation, who are as it were inſenſible to others; and on the contrary, many are eaſily affected by common inflammation, who are inſenſible to this. Theſe laſt are rather uncommon diſpoſitions, and the cure being always eaſy they demand little attention. When the ſymptoms are violent, but of the common inflammatory kind, which is to be collected from the attending circumſtances, particularly the extent of the inflammation not exceeding the ſpecific diſtance, the local mode of cure may be either irritating or ſoothing. Irritating applications in the preſent caſe may be attended with leſs danger than in the *irritable inflammation*,* and may alter the ſpecific action; but to produce

* It is very difficult to give clear ideas of diſtinctions in diſeaſe, when they are not marked by ſomething permanent as to time, ſpace, &c. I have uſed the term *irritable inflammation*, becauſe I think this kind of inflammation takes place more in weak irritable habits than in others: it appears to be guided by no law that I am acquainted with. It may be called an ill formed inflammation, as not going through the uſual proceſs to a natural termination, but continuing with little variation; and if ſuch inflammation were to take place in the cellular membrane, it would rather produce an œdematous ſwelling than ſuch as ariſes from the extravaſation of coagulable lymph, which takes place in what I would call the true inflammation.

produce this effect it muſt be greater than the irritation from the original injury. The parts will afterwards recover of themſelves, as from any other common inflammation. After all, however, I believe the ſoothing plan is the beſt at the beginning. If the inflammation be great, and of the irritable kind, no violence is to be uſed in the cure, (for it will only increaſe the ſymptoms) unleſs we know that the great degree of inflammation ariſes entirely from a ſuſceptibility of this irritation, and that there is no general irritability in the conſtitution; which ſeldom can be aſcertained. In caſes where the ſymptoms run high, nothing ſhould be done that may tend to ſtop the diſcharge, either by internal or external means, for nothing would be gained thereby; as we may ſtop the diſcharge, and not put an end to the inflammation. The conſtitution is to be altered if poſſible, by remedies adapted to each diſpoſition, with a view to alter the actions of the parts ariſing from ſuch diſpoſitions, and reduce the diſeaſe to its ſimple form. If the conſtitution cannot be altered, nothing is to be done but to allow the action to wear itſelf out.

When the inflammation has conſiderably abated, and the diſeaſe only remains in a mild form, its cure may be attempted either by internal remedies, or local applications. If a local cure be attempted, violence is ſtill to be avoided; becauſe it may bring back the irritation. At this period gentle aſtringents may be applied with a proſpect of ſucceſs; or, if the diſeaſe has begun mildly, and there are no ſigns of an inflammatory diſpoſition, either of the common kind, or the irritable, in order to get rid of the ſpecific mode of action quickly, an irritating injection may be uſed, which will increaſe the ſymptoms for a time, but when it is left off they will often abate, or wholly diſappear. In ſuch a ſtate of parts, aſtringents may be uſed; for the only thing to be done, is to procure a ceſſation of the diſcharge, which is now the principal ſymptom.

In thoſe caſes where the itching, pain, and other uncommon ſenſations are felt for ſome time before the diſcharge appears, I ſhould be inclined to recommend the quieting or ſooting plan inſtead of the irritating, with a view to bring on the diſcharge, as that effect is a ſtep towards a reſolution of the irritation; but how far it would really be the proper plan I cannot abſolutely ſay, not having had experience enough in ſuch caſes. One thing, however,

however, I think, I may aſſert from reaſoning, that to uſe aſtringents would be bad practice, as they would rather tend to prevent the diſcharge from taking place, which might prolong the inflammation and protract the cure. In caſes of ſtricture, or in caſes of diſeaſed teſticles, I believe, aſtringents ſhould not be uſed; for we find in either caſe, while the diſcharge laſts, both complaints are relieved; therefore in ſuch caſes we ſhould proceed with more caution than when all the parts are otherwiſe ſound. If we had a ſpecific for venereal gonorrhœa, it would ſtill be a queſtion, whether this ſpecific could cure the irritation before the full action had taken place.

I. OF THE DIFFERENT MODES OF PRACTICE—EVACUANTS—ASTRINGENTS.

The internal remedies commonly recommended in a gonorrhœa may be divided into evacuants and aſtringents. The evacuants are principally of the purgative or diuretic kind, and theſe not confined to any particular medicines; for every practitioner ſuppoſes that he is in poſſeſſion of the beſt. Some uſe mercurial evacuants, while others carefully avoid mercury in every form. The neutral ſalts have been given from the idea of their being cooling. Some of the profeſſion have kept principally to diuretics, perhaps with two views, as evacuants acting upon the urinary paſſages mechanically, to waſh off the venereal matter, or as ſpecifics for the latter purpoſe: nitre has been given with this view; beſides, it has been ſuppoſed to leſſen inflammation; but its virtues in this way I very much doubt. Under theſe different modes of treatment the patients always get well, and the cures are aſcribed by each practitioner to his own method of treatment.

To keep the body open in moſt caſes, even when the patient is in other reſpects in health, muſt, no doubt, be proper; but what idea can we form of an irritation produced all along the inteſtinal canal, curing a ſpecific inflammation in the urethra? Yet there are caſes where a briſk purge has been of ſervice, and even in ſome has performed a cure. But I ſuſpect that in ſuch caſes the diſeaſe had been continued by habit only, and that this practice would not have ſucceeded in the beginning. A gentleman

tleman had a gonorrhœa, all the ſymptoms of which continued for two months, and by taking at once ten grains of calomel, which purged him moſt violently, he was almoſt immediately cured. The calomel could not have acted ſpecifically, but by a kind of derivation, that is, an irritation, produced in one part, cured one that ſubſiſted in another; but even if it ſhould be granted, that in ſome conſtitutions purges have the power of making the ſolids leſs ſuſceptible of this irritation, it cannot be ſuppoſed they will have this effect in every caſe: in ſome conſtitutions they might debilitate, increaſe irritability, and of courſe increaſe the ſymptoms. Theſe contrary effects muſt take place in different conſtitutions in which a medicine has no ſpecific action. On the ſuppoſition of the cure being promoted by an evacuation from the blood, what ſervice can purging out ſome of the blood in form of a ſecretion from one part do, to an inflammation of another part? On ſuch a ſuppoſition, would not a ſweat, or an increaſe of ſaliva by chewing tobacco, or ſtimulating the noſe by ſnuff, all tend equally to cure a gonorrhœa? But humors having been conſidered as the univerſal cauſe of every diſeaſe, eſpecially thoſe in which pus is formed or a diſcharge produced, and purging having been ſuppoſed to be the cure for humors, purgatives were of courſe made uſe of in this diſeaſe; and as the patients have always been cured, the practice became generally eſtabliſhed.

Thoſe who recommended mercury in this form of the diſeaſe, did it moſt probably from the opinion that this medicine was a ſpecific for the venereal diſeaſe in all its forms. On this ſuppoſition we can ſee ſome reaſon for their practice, as it would be abſorbed from the inteſtines, circulate through the inflamed veſſels of the urethra, and thereby deſtroy the venereal irritation. Here we can only ſuppoſe it to act by its ſpecific virtue; but I doubt very much of mercury having any ſpecific virtue in this ſpecies of the diſeaſe, for I find that it is as ſoon cured without mercury as with it; and where this medicine is only uſed as a purge, or purged off the next day, and therefore allowed to act merely upon the bowels, I cannot conceive that it could have any more effect upon the venereal inflammation in the urethra, than an irritation in the bowels ariſing from any other purgative. So little effect indeed has this medicine upon a gonorrhœa, that I have known a gonorrhœa take place while under a courſe of mercury ſufficient

for the cure of a chancre. Whether the gonorrhœa aroſe from the ſame infection that produced the chancre I cannot ſay; nor can it be eaſily determined in ſuch caſes. Men have alſo been known to contract a gonorrhœa when loaded with mercury for the cure of a lues venerea; the gonorrhœa, nevertheleſs, has been as difficult of cure as in ordinary caſes.

A gentleman committed himſelf to my care, on the 27th of June, for the cure of two chancres and a bubo. I diſperſed the bubo, but as he diſliked the unction, I was obliged to ſubſtitute mercurius calcinatus, daily, inſtead of it, giving two grains in the evening and one in the morning. About the middle of July his mouth became ſore, and the mercury was left off; we began its uſe again in a week, and he appeared to be quite well of his venereal complaints. I, however, continued the uſe of mercury, keeping his mouth ſore, and on the 16th of Auguſt, while in this ſtate, he had a connection with a woman, both on that and the following evening, and in five days after, a gonorrhœa appeared, and proved to be very violent.

The ſame general obſervations may be made with regard to the effects of diuretics, conſidered as evacuants.

It is poſſible that ſpecific medicines taken into the conſtitution, (if we had ſuch) and paſſing off by urine, might act upon the urethra in their paſſage through it. The balſams and turpentines paſs off in this way, and become ſpecifics for many irritations in the urinary paſſages; but how far medicines which have the power of affecting particular parts when ſound, or when under diſeaſes peculiar to thoſe parts, have alſo the powers of affecting a ſpecific irritation in theſe parts, I know not; but do not believe they have any conſiderable powers in this way. It is poſſible, however, that they may remove any attending irritation, although not the ſpecific one. Diuretics have, nevertheleſs, their advantages; for if they produce a greater quantity of water, they do good: but I believe this had better be effected by ſimple water, or water joined with ſuch things as will encourage the patient to drink a good deal, as tea, ſirop of capillaire, orgeate, and the like.

Aſtringents, although often given, yet have always been condemned by thoſe who have called themſelves the judicious and regular practitioners; becauſe, according to them, there is ſomething to be carried off, and if that is not carried off, a lues venerea is to be the conſequence. This reaſoning

ſoning is not juſt, and therefore the queſtion to be conſidered, is, Do they, or do they not aſſiſt us in the cure of the gonorrhœa? I believe they do not in any caſe leſſen the venereal inflammation; but certainly they often leſſen the diſcharge. As that effect, however, does not conſtitute a cure, it is not neceſſary to produce it.

I can conceive that a combination of aſtringents, eſpecially the ſpecific aſtringents of thoſe parts, as the balſams, with any other medicine which may be thought to be of ſervice, may help to leſſen the diſcharge in proportion as the inflammation abates; and this I have often ſeen, as will be explained more at length hereafter.

II. OF LOCAL APPLICATIONS—DIFFERENT KINDS OF INJECTIONS—IRRITATING—SEDATIVE—EMOLLIENT—ASTRINGENT.

Local applications may be either internal to the urethra, external to the penis, or both; all of which will in many caſes be neceſſary. The internal, applied to the urethra, ſhould ſeem the moſt likely to cure this ſpecies of diſeaſe, by coming immediately in contact with the diſeaſed parts; for if they have any power of action, whatever that be, it muſt be in oppoſition to the venereal irritation. Therefore we might ſuppoſe that moſt irritations, that are not venereal, would tend to a cure; but certainly this is not univerſally the caſe. If, on the contrary, the applications are ſuch as quiet irritation, they muſt alſo be of ſervice.

Local applications to the urethra may be either in a ſolid or fluid form, each of which has its advantages and diſadvantages. A fluid is only a temporary application, and that of very ſhort duration, and is ſimilar to the waſhing of a ſore, which is, I believe, in moſt caſes unneceſſary; for I imagine that matter, from any ſore whatever, is always ſuch as cannot ſtimulate that ſore into any action; it can be of no conſequence, therefore, whether the matter is allowed to lie upon it, or not; but it being removed, the medicines are allowed to come in contact with the inflamed ſurface. I apprehend, it is only in this way that the removal of it can be of ſervice.

The ſolid applications may remain a long time, and are ſimilar to the dreſſings in the caſe of a wound. When the parts are not ſo much inflamed as to prevent the uſe of them, they would appear to have an advantage over the fluid applications by continuance; but they in general irritate immediately, in conſequence of their ſolidity alone. Theſe applications muſt be in the form of a bougie; but I ſhould be inclined to ſuppoſe, that the leſs uſe that is made of bougies, when theſe parts are in an inflamed ſtate, the better; although I cannot ſay that I ever ſaw any bad effects from them in any caſe, when applied with caution.

Fluid applications to the inſide of the urethra are commonly called injections, and like the internal remedies, are without number; every practitioner thinking, or wiſhing to make the world think, that his own is the beſt. But, as every venereal inflammation is frequently removed under the uſe of injections of various kinds (which were obſerved with reſpect to internal medicines), have we not here a ſtrong corroborating circumſtance in favour of an opinion, that every ſuch complaint will in time cure itſelf? I think, however, it appears from practice, that an injection will often have almoſt an immediate effect upon the ſymptoms, and that, therefore, they muſt have ſome powers; and yet the kind of injection, which would have the greateſt ſpecific powers, I believe, is not yet known: if an injection has no ſpecific powers, it muſt be very uncertain in its effects, and can only be of ſervice as far as it may be adapted to a peculiarity of conſtitution or parts. As injections are only temporary applications, it becomes neceſſary to uſe them often, eſpecially in caſes where they are found to be of ſervice; they ſhould therefore be applied as often as convenient, perhaps every hour, or even oftener; but this muſt be regulated in ſome meaſure by the kind of injection; for if it be irritating, it will not be proper to uſe it ſo often, as it may be productive of bad conſequences.

Many injections immediately, or at leaſt ſoon after the application, remove the ſymptoms, and prevent the formation of matter, which has given riſe to the notion of their ſhutting up the diſeaſe, and driving it into the conſtitution; but this ſuppoſed mode of producing a conſtitutional complaint, is the reverſe of what really happens; for I have already endeavoured to prove, that matter is the only ſubſtance in which the poiſon is contained,

and

and that the formation of the poiſon is inſeparable from the formation of matter; therefore if we can prevent the one, the other cannot take place, and of courſe there can be no room for abſorption; ſo that there can neither be any power of infecting the conſtitution in the ſame perſon, nor of communicating the infection to others.*

When the diſcharge is an effect of preſent inflammation, it may be ſtopped by injections, though the inflammation ſtill continue in ſome degree, and may afterwards be removed without the diſcharge ever reappearing. But I believe that by this practice little is gained, for the effect of the inflammation is not the diſeaſe which we wiſh to remove. However, we find that the ſame method which ſtops the diſcharge, alſo removes the inflammation, although not always, and only I believe when the inflammation is ſlight.

I ſhall divide injections, according to their particular effects upon the urethra, into four kinds, the irritating, ſedative, emollient, and aſtringent. The ſpecific, I believe, is not yet diſcovered, although a mercurial injection, in ſome form or other, is by moſt people ſuppoſed to be poſſeſſed of ſuch a power, and of courſe this mineral makes part of many of the injections now in uſe.

Irritating injections, of whatever kind, I ſuſpect, in this diſeaſe act upon the ſame principle, that is, by producing an irritation of another kind, which ought to be greater than the venereal, by which means the venereal is deſtroyed and loſt, and the diſeaſe is cured, although the pain and diſcharge may ſtill be kept up by the injection. Thoſe effects, however, will ſoon go off when the injection is laid aſide, becauſe they ariſe only from its irritating qualities. In this way bougies, as well as many injections, may be ſuppoſed to perform a cure; and although they increaſe the ſymptoms for the time, they never can increaſe the diſeaſe itſelf, any more than the ſame injection which would produce the ſame ſymptoms, if applied to the urethra of a ſound man, can communicate the diſeaſe. Moſt of the irritating injections have an aſtringent effect, and prove ſimply aſtringents when mild; their irritating quality depending chiefly upon their ſtrength.

* Vide page 12, what was ſaid in the method of contracting the lues venerea.

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As irritating injections do not agree with all inflammations arising from the venereal poison,* it may be asked, In what cases are the irritating injections to be used with advantage? This I have not been able to determine absolutely; but I think irritating injections should never be used where there is already much inflammation, especially in constitutions which cannot bear a great deal of irritation, as a previous knowledge of the disease in the same person sometimes teaches us; nor should they be used where the irritation has spread beyond the specific distance; nor where the testicles are tender, nor where upon the discharge ceasing quickly they have become sore; nor where the perinæum is very susceptible of inflammation, and especially if it formerly has suppurated; nor where there is a tendency in the bladder to irritation, which is known from the patient having had for some time a frequency in making water. In such cases I have not succeeded with them; they not only do no good, but they often do harm; for I have seen them make the inflammation spread further in the urethra;† and I think I have had reason to suspect that they have been the cause of abscesses in perinæo. But in cases that are mild, and in constitutions that are not irritable, injections often succeed, and remove the disease almost immediately. The practice, however, ought to be attempted with caution, and not, perhaps, till milder methods have failed. Two grains of corrosive sublimate, dissolved in eight ounces of distilled water, are nearly as good an injection as any of the kind. But an injection of only half this strength may be used, where it is not intended to attempt a cure so quickly. If, however, the injection, even in that proportion, gives considerable pain in its application, or if it occasions a great increase of pain in making water, it should be diluted.

Sedative injections will always be of service in cases where the inflammation is considerable, not by lessening the disease itself, but by lessening the diseased action, which always allows the natural actions of the part more readily to take place. They are likewise very useful in relieving the painful feelings of the patient. Perhaps the best sedative we have is opium, as well

* For I have already remarked, that the inflammation varies according to the constitution.

† It is, however, to be remarked, that this symptom is not always to be attributed to the injection, for it often happens when none has been used.

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when given by the mouth or anus, as when applied to the part affected in the form of an injection. But even opium will not agree, or act as a ſedative in all conſtitutions or parts. On the contrary, it has often oppoſite effects, producing great irritability. Lead may be reckoned a ſedative, ſo far as it abates inflammation, while at the ſame time it may act as a gentle aſtringent. Fourteen grains of ſaccharum ſaturni, in eight ounces of diſtilled water, make a good ſedative aſtringent injection.

The drinking freely of diluting liquors may, perhaps, be conſidered as having a ſedative effect, as it in part removes ſome of the cauſes of irritation, rendering the urine leſs ſtimulating, either to the bladder, when the irritation is there, or to the urethra in its paſſage through it; and it is poſſible that diluting may leſſen the ſuſceptibility of irritation. The vegetable mucilages of certain ſeeds and plants, and the emollient gums, are recommended; but I ſuſpect that this practice is founded on a mechanical notion, and that none of them are of much ſervice. I believe, the advantage ariſes chiefly from the quantity of water that is drunk; and that if the water be joined with any thing, ſpirits excepted, that can induce the patient to drink freely, the purpoſe is fully anſwered. I have, however, been informed by ſome patients, that they have thought that when the liquids they drank have been impregnated with mucilaginous ſubſtances, they have had leſs uneaſineſs in making water.

Emollient injections are the propereſt applications where the inflammation is very great. They are moſt probably uſeful by firſt ſimply waſhing away the matter, and then leaving a ſoft application to the part; in which way I can conceive them to be of ſingular ſervice, by leſſening the irritating effects of the urine. Indeed practice proves this; for we often find that a ſolution of gum arabic, milk and water, or ſweet oil, will leſſen the pain and other ſymptoms, when the more active injections have done nothing, or have ſeemed to have done harm.

It very often happens, that the irritation is ſo great at the orifice of the urethra, that the point of the ſyringe cannot be ſuffered to enter. When this is the caſe, nothing ſhould be done in the way of injection till the inflammation abate. Emollients may likewiſe be uſed externally in form of fomentation.

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The aſtringent injections can only act by leſſening the diſcharge. They can have no ſpecific effect upon the inflammation; but, as they muſt affect the actions of the living powers, it is poſſible they may alter the venereal diſpoſition. They ſhould only be uſed towards the latter end of the diſeaſe, when it has become mild and the parts begin to itch. But this ſhould be according to circumſtances, and, if the diſeaſe begins mildly, they may be uſed at the very beginning; for by gradually leſſening the diſcharge without increaſing the inflammation, we complete the cure, and prevent a continuation of the diſcharge, called a gleet. Injections of this kind very probably ſtimulate in ſuch a way as to make the veſſels of the part contract, and probably hinder the act of ſecretion. We can hardly ſuppoſe that they act chemically by coagulating the juices. They will have an irritating quality, if uſed ſtrong; which in ſome meaſure deſtroys their aſtringency, or rather makes the parts act contrary to what they would do from the application of a ſimple aſtringent. Thus they often increaſe the diſcharge inſtead of leſſening it; by which means the diſeaſe alſo may be cured, in the ſame way as by irritating injections, that is, by altering the diſpoſition of the inflammation. When more mild, they often ſtop the diſcharge, without, however, in all caſes, haſtening the cure; for the inflammation may ſtill continue even longer than it otherways would have done, if the tendency to ſecretion had not been ſtopped. I have already obſerved, that a ſurface that diſcharges has aſſumed the complete action of the diſeaſe, which is one ſtep towards a cure or termination. However, it ſometimes happens, that an aſtringent injection will cure a ſlight irritation in a very few days. My experience has not taught me that one aſtringent is much better than another.

The aſtringent gums, as dragon's blood, the balſams, and the turpentines, diſſolved in water; the juices of many vegetables, as oak bark, Peruvian bark, tormentil root, and perhaps all the metallic ſalts, as green, blue, and white vitriols; the ſalts of mercury, and alſo alum; probably all act much in the ſame way; although we may aſſert, that they do not always act equally well in every gonorrhœa, for on our changing the injection, we ſometimes ſucceed after ſeveral others have been tried in vain.

The external applications are generally poultices, and fomentations; but they can be of little ſervice, except when the external parts, ſuch as the prepuce,

prepuce, glans, and orifice of the urethra, are in ſome degree inflamed; the laſt, indeed, is almoſt always more or leſs affected.

When the glands of the urethra are ſo much ſwelled ſo as to be felt externally, the application of mercurial ointment to the part may be proper; but moſt probably this will be of more ſervice after the inflammation has ſubſided. Indeed, mercurial ointment is often applied to all the external ſurfaces of thoſe parts when in a ſtate of inflammation, with an emollient poultice over it. I am not perfectly ſatisfied of the utility of this practice.

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CHAPTER V.

OF THE CURE OF GONORRHOEA IN WOMEN.

IN women the cure of the gonorrhœa is nearly the ſame as in men; but the diſeaſe itſelf is milder, and the ſecondary ſymptoms leſs numerous in women. This ariſes from there not being ſo many parts to be affected, and from thoſe parts not being either of ſo great extent, or ſo liable to inflammation. Hence the cure becomes more ſimple.

When the diſeaſe is in the vagina only, it is eaſily cured. Injections are the beſt means that can be uſed, and, after the uſe of them, it may be proper to anoint the parts, as far up as poſſible, with mercurial ointment,* and alſo to waſh the external parts often with the injection.

If the inflammation has attacked the urethra, injections there cannot be ſo conveniently uſed, as it is almoſt impoſſible for the patient to throw an injection into that canal.

The injections, recommended in the cure of men, are equally ſerviceable here; but they may be made doubly ſtrong, as the parts of women are not nearly ſo irritable as the common ſeat of this diſeaſe in men.

If what I have ſaid of the diſeaſe in women be juſt, we muſt ſee that it will be a difficult thing to ſay, with any degree of certainty, when the patient is well; becauſe, whenever the ſymptoms have ceaſed, the ſurgeon and the patient will naturally ſuppoſe the cure to be complete; but a new trial of thoſe parts may prove the contrary; or in caſes, where the diſeaſe has never affected the urethra, but only the vagina, and ſtill more where no ſymptoms have ever been obſerved, it will be more difficult to fix the date of the cure; but general experience muſt direct the practitioner.

* How far mercurial ointment aſſiſts in the cure, I have not been able to determine; the uſe of it ariſes more from a kind of practical analogy than real experience in ſuch caſes.

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When the inflammation runs along the ducts of the glands, whether thoſe of the mouth of the vagina, or urethra, or affects the glands themſelves, the ſame method is to be followed; in particular, the mercurial ointment is to be freely applied to the parts. If the inflammation on the mouths of the ducts is ſo great as to ſhut them up, the duct and glands will ſuppurate, and form abſceſſes: in ſuch caſes it will be neceſſary to open them, or enlarge the opening already formed, and dreſs the abſceſs as a chancre or bubo.

In the caſe of a ſimple running, the conſtitutional treatment will be taken notice of hereafter; but if any ſuppuration follow, the conſtitution is to be treated as in chancres or buboes; for moſt probably abſorption will take place, and its effects muſt be guarded againſt.

CHAPTER VI.

OF THE TREATMENT OF THE CONSTITUTION IN THE CURE OF THE GONORRHOEA.

IN the cure of the gonorrhœa, the conſtitution is in ſome caſes to be as much attended to as the parts affected, if not more; but in general this is not neceſſary. The knowledge of the conſtitution is to be obtained in a great meaſure from the local ſymptoms, and as far as the conſtitutional treatment can be made ſimilar to the local, they ſhould correſpond.

We find in many ſtrong plethoric conſtitutions, where both the powers and actions are great, that the ſymptoms are violent. Theſe conſtitutions have generally a ſtrong tendency to fever of the inflammatory kind; and probably the moſt diſtinguiſhing mark of ſuch a conſtitution is that of the ſymptoms not extending beyond the ſpecific diſtance. Many medicines, which might be of ſervice in another conſtitution, will often prove hurtful here, in ſo much as to increaſe the very ſymptoms which they were meant to relieve. I have ſeen even opiate clyſters, though they relieved at firſt, yet in the end produce or increaſe fever, and by that means increaſe all the ſymptoms. I have ſeen the balſam capivi, given in ſuch caſes, increaſe the inflammatory ſymptoms, probably by ſtopping the diſcharge in part, which appears to be ſalutary. The treatment of ſuch a conſtitution, when affected with this diſeaſe, conſiſts chiefly in evacuations, the beſt of which are bleeding and gentle purging. To live ſparingly, and above all to uſe little exerciſe, is neceſſary; for although ſuch a treatment does not leſſen the venereal irritation, yet it leſſens the violence of the inflammation, and allows the parts to relieve themſelves. In this kind of conſtitution, therefore, the diſeaſe is in the end ſooneſt cured, as there is not a tendency to a continued inflammation.

In the weak and irritable conſtitution, the ſymptoms are frequently very violent, ariſing from great action in the parts, and often extend beyond the ſpecific

ſpecific diſtance; the inflammation running along the urethra, and even affecting the bladder. Inſtead of evacuations, which would rather aggravate the ſymptoms than relieve them, the conſtitution ſhould be ſtrengthened, and thus it will be leſs ſuſceptible of irritation in general.

I have ſeen patients, whoſe conſtitutions was ſuch, that they were never ſure of twenty-four hours health, where the inflammation has been both conſiderable, and extenſive. I have ſeen evacuations tried, and the ſymptoms increaſed; but as ſoon as the bark was given freely, they have become almoſt immediately mild; and without uſing any other medicine the patients have ſoon recovered. The medicine here acted upon the conſtitution; deſtroyed the irritability; gave the parts a true and healthy ſenſe of the venereal irritation, and brought the inflammation to that ſtate, in which it ought to be in a healthy ſubject; whereby the conſtitution was enabled to cure itſelf.

So capricious ſometimes is this form of the diſeaſe in its cure, that the acceſſion of an accidental fever has ſtopped the diſcharge, the pain in making water has ceaſed, and the gonorrhœa has finally terminated with the fever. In others I have ſeen all the ſymptoms of the gonorrhœa ceaſe on the acceſſion of a fever, and return when the fever has been ſubdued. In ſome I have ſeen a gonorrhœa begin mildly, but a ſevere fever coming on, and continuing for ſeveral days, has greatly increaſed the ſymptoms, and on the fever going off, the gonorrhœa has alſo gone off. Although a fever does not always cure a gonorrhœa, yet as it poſſibly may, nothing ſhould be done while the fever laſts; and if it continues after the fever is gone, it is then to be treated according to the ſymptoms.

Unfortunately there are caſes where no known method leſſens the ſymptoms; evacuations have produced no abatement; the ſtrengthening plan has been as unſucceſsful; ſedatives and emollients have procured no relief; and time alone has performed the cure. In ſuch caſes, the ſoothing plan, I believe, is the beſt, till we know more of the diſeaſe. Aſtringents ſhould not be uſed, their action upon the inflamed parts being uncertain; for they often do not leſſen the inflammation or the pain, although they may perhaps leſſen the diſcharge. The turpentines, eſpecially the balſam capivi, and Canada balſam, leſſen the diſpoſition of the parts to form matter, which

effect

effect has always a ſalutary appearance; but as they have not at the ſame time the power of leſſening the inflammation, they can be of little ſervice.

Beſides the various effects ariſing from the difference of conſtitution in the gonorrhœa, we find that it is conſiderably affected by the patient's way of life, during the inflammatory ſtate, and alſo by other diſeaſes attacking the conſtitution at the ſame time. But this is common to all other diſeaſes: for whenever we have a local diſeaſe (in which light I have conſidered a gonorrhœa) it is always affected by whatever affects the conſtitution. Moſt things that hurry, or increaſe the circulation, aggravate the ſymptoms, ſuch as violent exerciſe, drinking too much of ſtrong liquors, eating ſtrong indigeſtible food, ſome kinds of which act ſpecifically on theſe parts, thereby increaſing the ſymptoms more than by ſimply heating the body, ſuch as peppers, ſpices, and ſpirits.

From what has been ſaid in general, it muſt appear that a gonorrhœa is to be cured in the ſame way as every other inflammation; and it muſt alſo appear, that all the methods uſed are only to be conſidered as correctors of irritation in general, and of diſordered circulation. In caſes that have begun mildly, where the inflammation has been but ſlight, or in thoſe caſes where the violent ſymptoms, above taken notice of, have ſubſided, ſuch medicines, as have a tendency to leſſen the diſcharge, may be given along with the local remedies beforementioned. The turpentines, I believe, are the moſt efficacious. Cantharides, the ſalts of ſome metals, ſuch as of copper, and lead, and alſo ſome earths, as alum, are ſtrongly recommended as aſtringents when given internally.

Whatever methods are uſed for the cure, locally or conſtitutionally, it is always neceſſary to have in view the poſſibility of ſome of the matter being abſorbed, and afterwards appearing in the form of a lues venerea; to prevent which I ſhould be inclined to give ſmall doſes of mercury internally. At what time this mercurial courſe ſhould begin is not eaſily aſcertained; but if the obſervation be juſt, that a diſpoſition once formed is not to be cured by mercury, but that mercury has the power of preventing a diſpoſition from forming, as was formerly explained, we ſhould begin early and continue it to the end of the diſeaſe, till the formation of venereal matter ceaſes, and

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even for ſome time after. The mercurial ointment may be uſed where mercury diſagrees with the ſtomach and inteſtines.

This practice appears to be more neceſſary if the diſcharge has continued a conſiderable time, and eſpecially if the treatment has been ſimply by evacuants, for in the former caſe there is a greater time for abſorption, and in the latter we may ſuppoſe a greater call for it, ſuch medicines having no effect in carrying off the virus.

To prevent a lues venerea being produced from abſorption, a grain of mercurius calcinatus taken every night, or one at night and another in the morning, may be ſufficient; but ſhould be continued in proportion to the duration of the diſeaſe.

The ſucceſs of this practice in any particular caſe can never be aſcertained, becauſe it is impoſſible to ſay when matter has been abſorbed, except in caſes of buboes; and where it is not known to be abſorbed, it is impoſſible to ſay that there would have been a lues venerea if mercury had not been given, as very few are infected from a gonorrhœa, although they have taken no mercury. It is, however, ſafeſt to give mercury, as we may reaſonably ſuppoſe it will often prevent a lues venerea, as it does when given during the cure of a chancre or bubo, where we know, from experience, that without it the lues venerea would certainly take place.

CHAPTER

CHAPTER VII.

OF THE TREATMENT OF OCCASIONAL SYMPTOMS OF THE GONORRHOEA.

As the following ſymptoms are only occaſional conſequences of a venereal gonorrhœa, being the effects of an irritation on the urethra, and therefore not venereal, they are to be treated in the ſame manner as if they had ariſen from any other cauſe.

I. OF THE BLEEDING FROM THE URETHRA.

It has been already obſerved, that when the inflammation is violent, or ſpreads along the urethra, there is frequently a diſcharge of blood from the veſſels of that part. In ſuch bleeding, the balſam capivi, given internally, has been of ſervice; and it may be ſuppoſed that all the turpentines will be equally uſeful. I have not found any good effects from aſtringent injections; and in ſome caſes, have ſuſpected that they have been the cauſe of this complaint. They always go off in the uſual time of the cure of the gonorrhœa.

II. OF PREVENTING PAINFUL ERECTIONS.

Opium, given internally, appears to have great effects in preventing painful erections in many caſes. Twenty drops of tinctura thebaica, taken at bedtime, has procured eaſe for a whole night. The cicuta likewiſe ſeems to have ſome powers in this way.

III.

III. OF THE TREATMENT OF THE CHORDEE.

In the beginning of this complaint, bleeding from the arm is often of ſervice; but it is more immediately uſeful to take away blood from the part itſelf by leeches; for we often find by a veſſel giving way in the urethra, and a conſiderable hœmorrhage enſuing, that the patient is greatly relieved. Relief will often be obtained by expoſing the penis to the ſteam of hot water. Poultices likewiſe have beneficial effects; and both fomentations and poultices will often be aſſiſted in removing inflammation by the addition of camphor. Opium, given internally, is of ſingular ſervice; and, if it be joined with camphor, the effect will be ſtill greater; but opium in ſuch caſes acts rather by leſſening the pain than by removing the inflammation, though by preventing erections it may be ſaid to obviate the immediate cauſe of the complaint.

When the chordee continues after all other ſymptoms are gone, little or nothing, in the way of evacuation, ſeems to be neceſſary, the inflammation being ſubdued, and a conſequence of it only remaining, which will ceaſe gradually by the abſorption of the extravaſated coagulable lymph. Therefore bleeding, in this caſe, can be of no uſe. Mercurial ointment applied to the parts will promote the abſorption of the extravaſated coagulable lymph; for experience has ſhown, that mercury has conſiderable powers in exciting abſorption. The friction itſelf alſo will be of uſe. In one caſe conſiderable benefit ſeemed to reſult from giving the cicuta, after the common methods of cure had been tried. Electricity may be of ſervice. This ſymptom is indeed often longer in going off than either the running or pain; but no bad conſequences ariſe from it. Its declenſion is gradual and uniform, as happens in moſt conſequences of inflammation.

In relieving the cordee, or the remains of it, which appear to ariſe from ſpaſm, I have known the bark of great ſervice. Evacuations, whether from the part, or from the conſtitution, generally do harm.

IV. OF THE TREATMENT OF THE SUPPURATION OF THE GLANDS OF THE URETHRA.

SUPPURATIONS in the glands of the urethra are to be treated as chancres. Therefore mercury ought to be given; as will be explained hereafter.

Should a ſuppuration take place in Cowper's glands, it demands more attention. The abſceſs muſt be opened freely, and early, as the matter, if confined, may make its way either into the ſcrotum or urethra, whence would ariſe bad conſequences. Here alſo mercury muſt be given, and perhaps as freely as in a bubo. In ſhort, the treatment ſhould be the ſame as in a venereal ulcer; and in this reſpect it will differ from the treatment of thoſe abſceſſes which ariſe in conſequence of ſtricture.

V. OF THE TREATMENT OF THE AFFECTION OF THE BLADDER FROM GONORRHŒA.

WHEN the diſeaſe extends as far as the bladder, it produces a moſt troubleſome complaint, from which, however, bad conſequences ſeldom ariſe. But I ſuſpect that it ſometimes has laid the groundwork of future irritation in that part, which has proved very troubleſome, and even dangerous.

Opiate clyſters, if nothing in the conſtitution forbid the uſe of them, procure conſiderable temporary relief. The warm bath is of ſervice, although not always; and bleeing freely, if the patient is of a full habit, often does good. Leeches alſo, applied to the perinæum, have good effects; but in many conſtitutions bleeding will rather do harm; and we ſhould be cautious in making uſe of this evacuation, for it has been already obſerved, that many of theſe caſes are rather from ſympathy than inflammation. As this affection of the bladder often continues for a conſiderable time, producing other ſympathies in the neighbouring parts, and is not in the leaſt mitigated by the methods commonly uſed, I would recommend the following

ing trials to be made uſe of in ſuch caſes. An opiate plaſter to be applied to the pubes, or the ſmall of the back, where the nerves of the bladder take their origin; a ſmall bliſter on the perinæum which is of ſervice in irritations of the bladder ariſing from other cauſes.

VI. OF THE TREATMENT OF THE SWELLED TESTICLE.

When the teſticle ſympathiſes either with the urethra or bladder, and is inflamed, reſt is the beſt remedy. The horizontal poſition of the body is the eaſieſt, as ſuch a poſition is the beſt for a free circulation. If the patient cannot ſubmit to an horizontal poſition, it is abſolutely neceſſary to have the teſticle well ſuſpended. Indeed the patient will be happy in having recourſe to that expedient as ſoon as he is acquainted with the eaſe which it affords.

In this complaint, perhaps, no particular method of cure can be laid down. It is to be treated as inflammation in general, by bleeding and purging, if the conſtitution requires them, and by fomentation, and poultices. Bleeding with leeches has often been of ſervice. This we cannot well account for, as the veſſels of the ſcrotum have but little connection with thoſe of the teſticle.

As I do not look upon the ſwelling of the teſticle to be venereal, mercurials, in my opinion, can be of no ſervice in theſe caſes while the inflammation continues, but they are uſeful when that is gone, and the induration only remains.

Vomits have been recommended in ſuch caſes, and are ſometimes of ſervice. I have known a vomit remove the ſwelling almoſt inſtantaneouſly. The effects of the vomit moſt probably ariſe from the ſympathy between the ſtomach and the teſticle. Opiates are of ſervice, as they are in moſt irritations of thoſe parts. When ſuch ſwellings ſuppurate, which they ſeldom do, they require only to be treated as common ſuppurations; and mercury need not be given.

In the hiſtory of this diſeaſe I obſerved, and indeed it has been obſerved by moſt writers, that when a ſwelling comes upon the teſticle in conſequence of a gonorrhœa, the running ceaſes; or when the running ceaſes, the teſticle ſwells; but which is the cauſe, or which is the effect, has not yet been aſcertained. It has been alſo obſerved, that when the running returns, the teſticle then ſhows the firſt ſymptoms of recovery; ſo that the teſticle having loſt its ſympathiſing action, the action is reſtored to the urethra. And here alſo it has not yet been aſcertained, which is the cauſe, or which is the effect; but from a ſuppoſition that the ceſſation of the diſcharge in the urethra is the cauſe of the ſwelling, it has been attributed to the mode of treatment of that irritation, and by ſome to injections.

It has been adviſed by many, and attempted by ſome, to procure a return of the running; but the methods uſed have hardly been founded upon any ſound principle. Mr. Bromfield appears to have been the firſt, who recommended a treatment ſuitable to this theory, which was to irritate the urethra to ſuppuration again, by introducing bougies. I have not ſeen that benefit that could have been wiſhed, or that the firſt idea might induce us to expect, from this practice. Some have gone further, by recommending the introduction of venereal matter into the urethra; but this appears to be only conceit, and is founded upon a ſuppoſition that ſuch ſwellings ariſe only from venereal irritations. But I have already obſerved, that they are produced by other cauſes.

It is generally a long time before the ſwelling of the teſticle entirely ſubſides, although it does ſo more quickly at firſt than ſwellings of this part ariſing from other cauſes. Before it becomes leſs, it generally becomes ſofter, commonly on the anterior ſurface; and by degrees, the whole becomes perhaps ſofter than natural, and then it diminiſhes. It is ſtill much longer (ſometimes even years) before the epididymis returns to its natural ſtate; ſometimes it is never reduced to its natural ſize and ſoftneſs. However, this is of no great conſequence, as no inconvenience reſults from a continuance of the hardneſs ſimply; though ſometimes, perhaps, ſuch teſticles are rendered totally uſeleſs. I never had an opportunity of examining the teſticle of one that was known to have this complaint; but have examined

mined teſticles where the epididymis has had the ſame external feel, and where the canal of the vas deferens has been obliterated. But this, I ſuſpect to, ſeldom happens, for there are people who have both teſticles ſwelled, and, notwithſtanding, diſcharge their ſemen as before.

It is in this ſtage of the complaint that reſolvents may be of ſervice, ſuch as mercurial friction joined with camphor. Likewiſe we may uſefully apply fumigations with aromatic herbs, in order to ſtimulate the abſorbents to take up the ſuperfluous matter. Electricity has been in ſome caſes of ſingular ſervice.

VII. OF THE DECLINE AND TERMINATION OF THE SYMPTOMS OF GONORRHŒA.

The decline of the diſeaſe is generally known by an abatement of ſome or all of the abovementioned ſymptoms. The pain in the part becomes leſs, or terminates in an itching ſimilar to what is felt in the beginning of many gonorrhœas, and at laſt entirely goes off. The ſenſe of wearineſs about the loins, hips, teſticles and ſcrotum, is no longer felt; and the tranſparent cherry-like appearance of the glans penis gradually diſappears. Theſe are the moſt certain ſigns of an abatement of the diſeaſe.

The running becomes leſs; or, if it does not diminiſh, becomes firſt whiter, then of a paler colour, and gradually acquires a more ſlimy and ropy conſiſtence, which has always been conſidered as the moſt certain ſign of an approaching cure. When the running becomes more ſlimy, it is then changed from matter to the natural fluid which lubricates the paſſage, and alſo to that fluid which appears to be preparatory to coition; but it is often very inconſtant in its appearances, ariſing frequently from different modes of living, exerciſe, or other cauſes.

It often happens that all the ſymptoms ſhall totally diſappear, and the patients ſhall think themſelves cured; and yet the ſame ſymptoms ſhall come upon them anew, commonly indeed milder than at firſt, though in in ſome caſes as violent, or even more violent; and this takes place ſometimes

times at a conſiderable diſtance of time. I have known the ſymptoms return a month after every appearance of the diſeaſe has been removed. However, in ſuch caſes, they ſeldom laſt long. How far this ſecond attack is to be looked upon as truly venereal, has not as yet been aſcertained. Nothing can prove it abſolutely to be venereal but the circumſtance of having given it to a ſound perſon. What may be the caſe with thoſe in whom it has returned ſoon after the going off of the ſymptoms, I will not pretend to ſay; but I ſhould very much ſuſpect that, where the patient has continued well for a month, a return cannot be venereal. This is only conjecture; and if we were to reaſon upon it, we might eaſily reaſon ourſelves into a belief of its being venereal; for if the parts can fall back again into one mode of action, that of inflammation and ſuppuration, there can be no reaſon why they ſhould not fall back again into the ſpecific mode of action. However, as the common effect of irritation is ſuppuration, and as the ſpecific ſuppuration requires a peculiar irritation, it is eaſier to conceive that the parts may fall into the common mode of action, than into both. It is poſſible, however, that in ſuch caſes, the venereal action may be only ſuſpended, ſimilar to what happens between the contamination and complete appearance of the diſeaſe.

In women, returns of the ſymptoms are more frequent than in men, particularly of the diſcharge; which being ſimilar to the fluor albus, and frequently taken for that diſeaſe, gives leſs ſuſpicion, although they are perhaps equally virulent as thoſe in men.

The diſtinction between a gonorrhœa and a gleet is not yet aſcertained, for the inflammation ſubſiding, the pain going off, and the matter altering, are no proofs that the poiſon is deſtroyed. It is no more neceſſary that there ſhould be a continuance of the inflammation to produce the ſpecific poiſon, than there ſhould be a continuance of the inflammation to produce the gleet, as will appear evident from two caſes before related.*

The firſt of theſe caſes ſhows that the inflammation is not neceſſary to the exiſtence of the venereal poiſon; and, on the contrary, the inflamma-

* Vide page 38 and 39.

tion

tion may exiſt after the matter diſcharged has ceaſed to be venereal. I have known caſes where the inflammation and diſcharge have continued for twelve months, and with conſiderable violence: in the mean time a free intercourſe with women has not communicated the diſeaſe. However, this is not an abſolute proof that there is no virus in the diſcharge.

CHAPTER

CHAPTER VIII.

OBSERVATIONS ON THE SYMPTOMS WHICH OFTEN REMAIN AFTER THE DISEASE IS SUBDUED.

IT often happens after the virus is deſtroyed, and the venereal inflammation removed, that ſome one, two, or more of the ſymptoms ſhall continue, and perhaps prove more obſtinate than the original diſeaſe itſelf. Some of theſe ſymptoms ſhall continue through life, and even new ones ſhall ſometimes ariſe as ſoon as the firſt have ſubſided. All theſe ſymptoms are commonly imputed by the patients themſelves, and what is ſtill worſe, by ſome of the profeſſion, to the original diſeaſe having been ill treated. But certainly ſo far as we are yet acquainted with the diſeaſe and method of cure, this is not true; for the methods of treatment, though numerous, may be ſaid to be very ſimilar; and we ſhall find theſe ſymptoms not to be conſequences of any one mode of treatment, but that they happen indiſcriminately after them all. Yet I can conceive that many conſtitutions, and particular parts, often require one mode of treatment in preference to another, and probably require modes that we are not as yet acquainted with; but if theſe peculiarities of conſtitution, or of parts, are not yet known, which muſt often be the caſe, the practitioner is not to be raſhly accuſed of ignorance.

In the introduction I obſerved, that the venereal diſeaſe is capable of calling into action ſuch ſuſceptibilities as are remarkably ſtrong, and peculiar to certain conſtitutions, and countries; and that, as the ſcrofula is predominant in this country, ſome of the effects of gonorrhœa may partake of a ſcrofulous nature.

The ſymptoms which continue after the virus is gone, do not owe their continuance to the ſpecific qualities of the virus, but to its effects upon the parts,

parts, ſuch as inflammation and its conſequences; for the ſame degree of inflammation, ariſing from any other cauſe, would leave moſt of the ſame effects. But I ſuſpect that the continuance of the diſcharge, called a gleet, is an exception to this; for we find that it is often cured by the ſame mode of action which would produce the other ſymptoms, that is, inflammation; and we find in general that a diſcharge brought on by violence of no ſpecific kind, does not laſt longer than the violence, even although the cauſe has been continued for ſome time, as is often the caſe during the uſe of bougies.

The firſt of the continued ſymptoms may be reckoned the remains of the diſagreeable ſenſations excited by the original diſeaſe.

The ſecond, the diſcharge called a gleet.

The third, the chordee.

The fourth, the irritable ſtate of the bladder.

The fifth, the increaſe and hardneſs of the epididymis.

I. OF THE REMAINS OF THE DISAGREEABLE SENSATIONS EXCITED BY THE ORIGINAL DISEASE.

The diſagreeable ſenſations which continue in the urethra and glans, occur moſt frequently when the bladder has ſympathiſed with the urethra during the diſeaſe; for then there are often the remains of the old ſhooting pains in the glans, or on its ſurface, which take their riſe from the bladder. Theſe, however, commonly go off, ſeldom being the forerunners of any bad ſymptoms, and therefore are not to be conſidered as part of the diſeaſe, but merely a conſequence; yet they are often very troubleſome, and teazing to the patient, keeping his mind in doubt, whether he is cured or not, which makes him frequently become the dupe of ignorant or deſigning men.

As theſe remaining ſenſations vary conſiderably in their nature, perhaps no one method of treatment will always be proper. I have known a bougie, introduced a few times, take off entirely the diſagreeable ſenſation in the urethra; and I have known it do no good. Gentle irritating injections uſed occaſionally will often alleviate in ſome degree thoſe complaints. A grain

of corroſive ſublimate to eight ounces of water makes a good injection for this purpoſe; but all ſuch applications are in general no more than palliatives.

I have known the uſe of hemlock relieve the ſymptoms very much, and in ſome caſes entirely cure them; while in many others it has not had the leaſt effect.

A bliſter applied to the perinæum will entirely cure ſome of the remaining ſymptoms, even when they extend towards the bladder, as will be explained hereafter. Indeed it appears to have more effect than any other remedy. A bliſter to the ſmall of the back will alſo give relief, but not ſo effectually as when applied to the perinæum.

The following caſes are remarkable inſtances of this. A Portugueſe gentleman, about twenty-five years of age, had contracted a venereal gonorrhœa of which he was cured, but two years after many of the ſymptoms ſtill continued, and even with conſiderable violence. The ſymptoms were the following; a frequency in making water, and when the inclination came on he could not retain it a moment; a ſtraining, and pain in the bladder after voiding it; a conſtant pain in the region of the bladder; a ſhooting pain in the urethra, which extended often to the anus; ſtrange ſenſations in the perinæum; a ſenſe of wearineſs in the teſticles; and if he at any time preſſed his thighs cloſe together, the pain or ſenſation in the perinæum was excited. It was ſuppoſed at Liſbon that he had the ſtone, and he came over to London for a cure of that diſeaſe. He was examined, but no ſtone was found. He was ordered to waſh the external parts every morning with cold water, which he did for a fortnight, but found no benefit. I was conſulted, and informed of all the abovementioned circumſtances. As a ſtaff had been paſſed, there could be no ſtricture; however, I thought it was poſſible there might be a diſeaſed proſtate gland, and therefore examined him by the anus; but found that gland of its natural ſize and firmneſs. As there was no viſible alteration of ſtructure any where to be found, I looked upon the diſeaſe as only a wrong action of the parts, and therefore ordered a bliſter to be applied to the perinæum, which being kept open only a few days, all the ſymptoms were entirely removed. He retained his water as uſual; all the diſagreeable ſenſations went off; and the bliſtered part was allowed to heal

heal. About a fortnight after, he got a freſh venereal gonorrhœa, which alarmed him very much, as he was afraid it might bring back all his former ſymptoms, which however did not return, and he was ſoon cured of the gonorrhœa. He ſtaid in London ſome time after, without any relapſe.

Another caſe was, that of a gentleman's ſervant in the country. He had, from a venereal cauſe, a diſagreeable ſenſation whenever he made water, alſo a running, and ſome degree of cordee; which ſymptoms he had laboured under for a conſiderable time. He had gone through a courſe of mercury which laſted two months, on a ſuppoſition that the venereal virus had not been deſtroyed, but without benefit. He had after that been bled, uſed powders of gum arabic and tragacanth, and taken calomel in ſmall doſes, with no better ſucceſs. He then had recourſe to injections and bougies of all kinds, but with no better ſucceſs. On the ground of the ſymptoms not being venereal, but only wrong actions of the parts, a bliſter was applied upon the perinæum, repeated and kept open ſix days, upon which the ſymptoms totally diſappeared, and had not recurred a twelvemonth afterwards.

This practice is not only of ſervice where there has been a preceding gonorrhœa, but I have found it remove, almoſt immediately, ſuppreſſions of urine from other cauſes, where the turpentines and opium, both by the mouth and anus, had proved ineffectual, and when the catheter had been neceſſarily introduced twice a day to draw off the water. But of this more fully hereafter.

Electricity has been found to be of ſervice in ſome caſes, and therefore may be tried either in the firſt inſtance, or when other means have failed.

II. OF A GLEET.

WHATEVER method has been had recourſe to in the cure of the venereal inflammation, whether injections have been uſed, or internal medicines, (mercurials, purgatives, or aſtringents) it often happens that the formation of pus ſhall continue, and prove more tedious and difficult of cure than the original diſeaſe. For, as I have already obſerved, the venereal inflammation is of ſuch a nature as to go off of itſelf, or to wear itſelf out; or, in

other words, it is ſuch an action of the living powers as can ſubſiſt only for a certain time. But this is not the caſe with a gleet, which ſeems to take its riſe from a habit of action which the parts have contracted, and as they have no diſpoſition to lay aſide this action, it of courſe is continued; for we find in thoſe gonorrhœas, which laſt long, and are tedious in their cure, that this habit is more rooted than in thoſe which go off ſoon.

This diſeaſe, however, has not always the diſpoſition to continue, for it often appears to ſtop of itſelf, even after every method has been ineffectually uſed. It is moſt probable, that this ariſes from ſome accidental changes in the conſtitution, not at all depending upon the nature of the diſeaſe itſelf.

I have ſuſpected that there was ſomething ſcrofulous in ſome gleets. We find frequently that a derangement of the natural actions of a part will be the cauſe of that part falling into ſome new diſeaſe to which there may be a ſtrong tendency in the conſtitution. We find that a cold falling on the eyes produces a ſcrofulous weakneſs in thoſe parts, with a conſiderable diſcharge. There are often ſcrofulous ſwellings in the tonſils from the ſame cauſe.

This opinion of the nature of ſome gleets is ſtrengthened by the methods of cure, for we find that the ſea-bath cures more gleets than the common cold bath, or any other mode of bathing. I have never yet tried the internal uſe of thoſe medicines which are generally given in the ſcrofula; but I have found ſea-water diluted, and uſed as an injection, cure ſome gleets, though it is not always effectual.

A gleet is generally underſtood to ariſe from a weakneſs; this certainly gives us no idea of the diſeaſe, and indeed there is none which can be annexed to the expreſſion. By mechanical weakneſs is underſtood the inability to perform ſome action, or ſuſtain ſome force. By animal weakneſs the ſame is underſtood. But when the expreſſion is applied to the animal's performing an uncommon, or an additional action, I do not perfectly underſtand it.

Upon this idea of weakneſs depended in a great meaſure the uſual method of cure; but we ſhall find that the treatment, founded on this idea, is ſo far from anſwering in all caſes, that it often does harm, and that a contrary practice is ſucceſsful.

A gleet

A gleet differs from a gonorrhœa, firſt in this, that though a conſequence of it, it is perfectly innocent with reſpect to infection. Secondly, when it is a true gleet it is generally different in ſome of the conſtituent parts of the diſcharge, which conſiſts of globular bodies floating or wrapt in a ſlimy mucus inſtead of a ſerum. But the urethra is ſo circumſtanced as eaſily to fall back into the formation of pus, and this commonly happens upon the leaſt increaſe of exerciſe, eating or drinking indigeſtible food, or any thing which increaſes the circulation or heats the patient. The virus, however, I believe, does not return; but of this I am not certain, for there are caſes that make it very doubtful, as was before obſerved.

I am inclined to ſuſpect that a gleet ariſes from the ſurface of the urethra only, and not from the glands; for I have obſerved in ſeveral inſtances, that when the paſſage has juſt been cleared, either by the diſcharge of urine, or by the uſe of an injection, a laſcivious idea has cauſed the natural ſlime to flow very pure, which I do ſuppoſe would not have happened if the parts, ſecreting the liquor, had aſſiſted in forming the gleet.

A gleet is ſuppoſed to be an attendant upon what we call a relaxed conſtitution; but I can hardly ſay that I have obſerved this to be the caſe; at leaſt I have ſeen inſtances where I ſhould have expected ſuch a termination of a gonorrhœa, if this had been a general cauſe, but did not find it; and I have ſeen it in ſtrong conſtitutions, at leaſt in appearance, in every other reſpect. Gleets do not in all caſes ariſe from preceding gonorrhœas, but ſometimes from other diſeaſes of the urethra. A ſtricture in the urethra is, I believe, almoſt always attended with a gleet. It ſometimes ariſes alſo from a diſeaſe in the proſtate gland.

When a gleet does not ariſe from any evident cauſe, nor can be ſuppoſed to be a return of a former gleet in conſequence of a gonorrhœa, a ſtricture, or diſeaſed proſtate gland is to be ſuſpected; and inquiry ſhould be made into the circumſtances of making water, whether the ſtream is ſmaller than common—whether there be any difficulty in voiding it—and whether the calls to make it are frequent. If there ſhould be ſuch ſymptoms, a bougie, of a ſize rather leſs than common, ought to be uſed, which, if there is a ſtricture, will ſtop when it reaches it; and if it paſſes on to the bladder with tolerable

tolerable eaſe, the diſeaſe is probably in the proſtate gland, which ſhould be next examined. But more fully of both theſe complaints hereafter.

III. OF THE CURE OF GLEETS—CONSTITUTIONALLY—LOCALLY.

As this diſcharge has no ſpecific quality, but depends upon the conſtitution of the patient, or nature of the parts themſelves, there can be no certain or fixed method of cure; and as it is very difficult to find out the true nature of different conſtitutions, or of parts, it becomes equally difficult to preſcribe with certainty the medicines that will beſt ſuit this diſeaſe; for ſo great is the variety in conſtitutions, that what in one caſe proves a cure, will in another aggravate the complaint.

There are two ways of attempting the cure of this complaint, conſtitutionally, or locally.

Medicines, taken into the conſtitution with a view to the cure of gleet, may be ſuppoſed to act in three ways, as ſpecifics,* ſtrengtheners, and aſtringents.

The ſpecific power of internal medicines upon thoſe parts is not very great; however we find that ſome of them, ſuch as the balſams, turpentines, and cantharides, are of uſe, eſpecially in ſlight caſes. I think I have been able to aſcertain this fact, that when the balſams, turpentines, or cantharides, are of ſervice they are almoſt immediately ſo; therefore if upon trial they are not found to leſſen, or totally remove the gleet in five or ſix days, I have never continued them longer. And even where they have either leſſened or totally removed the gleet in that time, it will often recur upon leaving them off, and therefore they ſhould be continued for ſome time after the ſymptoms have diſappeared. I have known caſes where the gleet has diſappeared immediately upon the uſe of the balſam capivi, and

* It may be neceſſary to remark here, that by ſpecific I do not mean a ſpecific for the diſeaſe, but only ſuch medicines as act ſpecifically on the parts concerned, as the turpentines, cantharides, &c.

recurred

recurred upon the omiſſion of it; and I have alſo ſeen where that medicine has kept it off for more than a month, and yet it has recurred immediately upon laying it aſide, and ſtopped again as quickly, when the patient has returned to it. In ſuch caſes the other methods of cure ſhould be tried. The balſams may either be given alone, or mixed with other ſubſtances, ſo as to make them leſs diſagreeable.

The general ſtrengtheners of the habit need only be given when the parts act merely as parts of that habit. The whole being diſpoſed to act properly, theſe parts are alſo diſpoſed to act in the ſame way. By general ſtrengtheners are here meant, the cold bath, the ſea-bath, the bark, and ſteel. Aſtringents, taken into the conſtitution, have no great powers; and if they had, they might be very improper, as any thing that could act with powers in the conſtitution equal to what would be neceſſary here, might very much affect many natural operations in the animal œconomy. The aſtringent gums and ſalt of ſteel, are commonly given.

The ſecond mode of cure is by local applications. Theſe may be divided into four, which are, ſpecifics, aſtringents, irritating medicines, and ſuch as act by derivation.

The ſpecifics applied locally, we may reaſonably ſuppoſe, will have greater effects than when given internally. becauſe they may be applied ſtronger than can ſafely be thrown into the circulation. Of this, I think, I have had experience.

The aſtringents, commonly uſed, are, the decoction of the bark, white vitriol, alum, and preparations of lead. The aqua vitriolica cœrulea, of the London Diſpenſatory, diluted with eight times its quantity of water, makes a very good aſtringent injection. The ſame obſervations that I made on the ſpecifics are applicable to the aſtringents; I believe that they act nearly in the ſame manner, and have the ſame effect. What their mode of action is it is difficult to ſay.

When either of theſe methods have been uſed, and have had the deſired effect, they ſhould be continued for a conſiderable time after the ſymptoms have diſappeared; and the time muſt be in proportion to the duration of the complaint, or the frequency of its returns. If it has been of long ſtanding, we may be ſure that the diſpoſition to ſuch a complaint is ſtrong; and if it has

has returned frequently, upon the leaſt increaſe of circulation, we may expect the ſame thing to happen again. Therefore, to correct the bad habit, it is neceſſary to continue the medicines a conſiderable time.

Irritating applications are either injections or bougies, ſimple, or medicated with irritating medicines. Violent exerciſe may be conſidered as having the ſame effect. Such applications ſhould never be uſed till the other methods have been fully tried and found unſucceſsful. They differ from the foregoing by producing at firſt a greater diſcharge than that which they are intended to cure; and the increaſed diſcharge may or may not continue as long as the application is uſed. It becomes, therefore, neceſſary to inquire how long they are to be uſed, to produce a cure of the gleet. That time will generally be in proportion to the violence uſed, and the nature of the parts which form the matter; and according to the diſpoſition being ſtrong or weak joined to its duration, and the greater or leſs irritability of the parts. If the parts are either weak or irritable, or both, an irritating injection ſhould not be uſed; if ſtrong, and not irritable, it may be uſed with ſafety. In this laſt caſe, if it is an injection that ſtimulates very conſiderably, perhaps it may be ſufficient to uſe it twice or thrice a day. I knew a gentleman, who threw into the urethra, for a gleet of two years ſtanding, Goulard's extract of lead undiluted, which produced a moſt violent inflammation; but when the inflammation went off, the gleet was cured. Two grains of corroſive ſublimate to eight ounces of water are a very good irritating injection.

If it is a gleet of long ſtanding, it may require a week or more to remove it, even with an irritating injection; and if the injection is leſs irritating, ſo as to give but little pain, and to increaſe the diſcharge in a ſmall degree, it may require a fortnight. But one precaution is very neceſſary reſpecting the uſe of irritating injections; it ſhould be firſt known if poſſible, that they will do no harm. To know this may be difficult in many caſes; but the nature of the parts is to be aſcertained as nearly as poſſibly, that is, whether they had ever been hurt before by ſuch treatment; whether they are ſo ſuſceptible of irritation, as that the irritation may be expected to run along the urethra and produce ſymptoms in the bladder; for in ſuch caſes irritating applications

applications do not anſwer, but on the contrary, often produce worſe diſorders than thoſe which they were meant to cure.

Bougies may be claſſed with the irritating applications; and in many caſes they act very violently as ſuch. They appear to be more efficacious than injections; but they require longer time to produce their full effect. A ſimple, or unmedicated bougie is, in general, ſufficient for the cure of a gleet, and requires a month or ſix weeks application before the cure can be depended on. If bougies are made to ſtimulate otherwiſe than as extraneous bodies, then a ſhorter time will generally be ſufficient. Probably the beſt mode of medicating them would be by mixing a little turpentine, or a little camphor with the compoſition, ſo as to act ſpecifically on the parts; but great care ſhould be taken not to irritate too much.

The ſize of the bougie ſhould be ſmaller than the common, and need only be five or ſix inches long, as it ſeldom happens that a greater extent of the urethra has the diſpoſition to gleet; but no harm will ariſe from paſſing a bougie of the common length through the whole extent of the urethra.

In the cure of a gleet, attempted by means of the bougie, we have no certain rules to direct us when it ſhould be left off; as the diſcharge will often continue as long as the bougie is uſed. If upon leaving off the bougie after the uſe of it for ſeveral weeks, the running ceaſes, then we may hope there is a cure performed; but if it ſhould not be in the leaſt diminiſhed, it is more than probable that bougies will not effect a cure, and therefore it is hardly neceſſary to have recourſe to them again. Yet, if the gleet is in part diminiſhed, it will be right to begin again, and probably it may be proper to increaſe the irritating quality of the bougie, in order to ſuit it to the diminiſhed irritability of the parts.

The fourth mode of cure is by ſympathy, or by producing an irritation in another part of the body, which ſhall deſtroy the mode of action in the urethra.

I knew a caſe of obſtinate gleet attended with very diſagreeable ſenſations in the urethra, eſpecially at the time of making water, removed entirely by two chancres appearing upon the glans. The patient had taken all the medicines commonly recommended, and had applied the bougie, without effect.

A gentleman informed me, that he had cured two perſons of gleets, by applying a bliſter to the underſide of the urethra; and I have known ſeveral old gleets, after having baffled all common attempts, cured by electricity. All theſe different methods of cure alter the diſpoſition of the part.

In whatever way the cure is attempted, reſt or quietneſs in moſt caſes is of great conſequence; for, as I have obſerved, exerciſe is often a cauſe, not only of its continuance, but of its increaſe and return. But this idea is not to be too rigidly adhered to, eſpecially in caſes which have been treated unſucceſsfully; as I have known ſome that have got immediately well by riding on horſeback after long diſuſe of that exerciſe.

Regularity and moderation in diet ſhould be particularly attended to; for irregularities of this kind either hinder the cure or bring on a return of the diſeaſe.

Intercourſe with women often cauſes a return, or increaſe of gleet, and in ſuch caſes it gives ſuſpicion of a freſh infection; but the difference between this, and a freſh infection is, that here the return will follow the connection ſo cloſe, as to be almoſt immediate, and that circumſtance, joined with the other ſymptoms, will in general aſcertain the nature of the diſchareg.

The cure of the gleet in women is nearly the ſame as in men, except in the uſe of what I have called ſpecifics to the parts; for as the gleet in women is principally from the vagina, I believe that this part is not more affected by the turpentines than other parts are; but as the vagina is leſs irritable than the urethra in men, the aſtringents which are applied to it may be conſiderably ſtronger. Neither can we uſe the bougie in caſes of gleet in the vagina; and when the gleet is only from the urethra, I imagine it is hardly ever attended to in women.

IV. OF THE REMAINING CHORDEE.

This ſymptom, I have already obſerved, often remains after every mark of the true virus is removed, and may or may not be attendant on any of the other continuing ſymptoms.

Mercurial

Mercurial ointment, applied to the part, may be of ſervice, and if joined with camphor, its powers will be increaſed. I have known electricity cure a chordee of long ſtanding. If it is the ſpaſmodic chordee that remains, bark ſhould be given.

V. OF THE CONTINUANCE OF THE IRRITATION OF THE BLADDER.

THE irritation of the bladder ſometimes continues after every other ſymptom has ceaſed, and it may be an attendant upon all, or any of the other continuing ſymptoms; it ſeldom laſts with the ſame violence, although it is often very troubleſome. When this irritation is kept up with the ſame violence, the bladder itſelf may be ſuſpected of being diſeaſed; or it may ariſe from its connection with other parts, ſuch as the urethra, or proſtate gland; for a ſtricture in the urethra coming on will prove the cauſe of its continuance, and a diſeaſe in the proſtate gland will do the ſame.

Neither of theſe diſeaſes will probably follow the gonorrhœa ſo cloſely as to keep up this irritation, though perhaps they may have been taking place prior to the gonorrhœa, and ſo contribute to its increaſe, and continuance; which may probably be aſcertained by a hiſtory of the patient preceding the preſent complaint; however, before the bladder itſelf is attempted to be cured, a bougie ſhould be paſſed, and if no ſtricture is found, then the proſtate gland ſhould be examined, as ſhall be deſcribed.

When the diſeaſe is in the bladder only, I think the pain is principally at the cloſe of making water, and for a little while after. The cure of this ſymptom conſiſts in opiate clyſters, cicuta, bark, ſea-bathing, and I ſhould be inclined to recommend the application of a bliſter to the perinæum in men. How far opiate clyſters can affect the bladder in women as they do in men, I am not certain.

VI. OF THE REMAINING HARDNESS OF THE EPIDIDYMIS.

THIS ſymptom I have obſerved remains long after every other ſymptom is removed, and may continue even for life, but ſeldom or ever any bad conſequences happen from it, if the vas deferens is not rendered impervious; and not even then if it is only in one teſticle, the other being equal to all the purpoſes of generation. As this is the caſe, we muſt at once ſee, that no certain method of reſolution is yet known. The application of the ſteam of hot water with camphor, may be tried, eſpecially in ſuch caſes as are not diſpoſed to be permanent; and the ſcrotum may be rubbed with mercurial ointment joined with camphor. But, in moſt caſes, this practice will prove too tedious, or rather too inefficacious to be long perſiſted in.

PART

PART III.

CHAPTER I.

OF DISEASES SUPPOSED TO ARISE IN CONSEQUENCE OF VENEREAL INFLAMMATION IN THE URETHRA OF MEN.

THE gonorrhœa produces, or at leaſt is ſuppoſed to produce, beſides thoſe diſorders already mentioned, many others which are totally different from the original diſeaſe. How far they do all or any of them ariſe in conſequence of this diſeaſe, is not clear; but as they are diſeaſes of the urethra, and are both numerous and important, I mean to treat fully of them in this place. If any of theſe diſeaſes ariſe from a gonorrhœa, they are moſt probably not the conſequences of any ſpecific quality in the venereal poiſon, but are ſuch as might be produced by any common inflammation in thoſe parts, as was obſerved of the *continued ſymptoms*.

In this inveſtigation we ſhall find ſome of the complaints ariſing out of each other, ſo that there is frequently a ſeries of them. Thus a ſtricture of the urethra produces an irritable bladder, a frequent deſire to make water, increaſed ſtrength of the bladder, a dilatation of the urethra between the bladder and ſtricture, ulceration, fiſtulæ in perinæo, dilatation of the ureters and enlargement of the pelvis of the kidneys, beſides other complaints that are ſympathetic, ſuch as ſwellings of the teſticle, and of the glands in the groin. I ſhall treat of the diſeaſes of thoſe parts in the order in which they moſt commonly ariſe.

It may be obſerved that moſt of theſe diſeaſes, eſpecially the diminution of diſtenſibility in the bladder, attack men advanced beyond the middle age, although

although many, if not all of them, are at times found in younger ſubjects, and the circumſtance of their appearing at this period ariſes probably in ſome degree from a long habit of an unnatural mode of life producing many diſeaſes, ſuch as gout; for certainly ſuch complaints do not ſo frequently take place among the more uncivilized nations.

The moſt frequent diſeaſe in the urethra is an obſtruction to the paſſage of the urine; it happens both in young and old, although moſt frequently in the latter. Before I begin to treat of this ſubject, I ſhall for the better underſtanding of the whole, make ſome obſervations on the uſes of this paſſage in its natural ſtate.

It may firſt be obſerved, that the urethra in man is employed for two purpoſes. On this occaſion I may be allowed to make the following general remark, that Nature has not been able to apply any one part to two uſes with advantage, as might be illuſtrated in many inſtances in different animals. The animals, whoſe legs are contrived both for ſwimming and walking, are not good at either, as ſeals, otters, ducks, and geeſe. The animals alſo, whoſe legs are intended both for walking and flying, are but badly formed for either, as the bat. The ſame obſervations are applicable to fiſh, for the flying fiſh neither ſwims, nor flies well; and whenever parts, intended for ſuch double functions, are diſeaſed, both are performed imperfectly. This is immediately applicable to the urethra, for it is intended as a canal or paſſage, both for the urine, and the ſemen. The urine requires the ſimpleſt of all canals, and of no greater length than the diſtance from the bladder to the external ſurface, as we find the urethra in women, birds, the amphibia, and fiſh; but the paſſage for the ſemen in the quadruped required to be a complicated canal, and of a length capable of conveying the ſemen to the female, provided with many additional and neceſſary parts, as the corpus ſpongioſum urethræ, muſculi acceleratores, Cowper's glands, proſtate gland, and veſiculæ ſeminales. As all theſe parts are to ſerve the purpoſes of generation, and as the diſeaſes of this canal are principally ſeated in them, we at once ſee how much the urinary organs muſt ſuffer from a connection with parts ſo numerous, and ſo liable to diſeaſe; and what adds to the evil is, that the actions of the urinary organs are conſtant, and abſolutely neceſſary for the wellbeing of the machine, whereas the evacuation

cuation of the ſemen takes place only during a certain portion of life, is then only occaſional, and never eſſentially neceſſary to the exiſtence of the individual. The force of this obſervation is at once ſeen by making the compariſon between the inconveniences that attend the expulſion of the urine in the male, and in the female.

The canal of the urethra is liable to ſuch diſeaſes as are capable of preventing in ſome degree the paſſage of the urine through it; and in ſome of theſe diſeaſes the paſſage at laſt becomes completely obſtructed. In all caſes there is a diminution of the ſize of the canal, but in different ways. There are five modes of obſtruction, four of which are diſeaſes of the paſſage itſelf, the fifth is a conſequence of the diſeaſes of other parts. Three of the former are a leſſening of the diameter of the paſſage; the fourth an excreſcence in the paſſage; the fifth ariſes from the ſides being compreſſed, which may be done either by exterior contiguous ſwellings, or by a ſwelling of the proſtate gland.

I. OF STRICTURES.

The three firſt I ſhall now conſider, of which the firſt is the true permanent ſtricture ariſing from an alteration in the ſtructure of a part of the urethra. The ſecond is a mixed caſe, compoſed of a permanent ſtricture and ſpaſm. The third is the true ſpaſmodic ſtricture. Moſt obſtructions to the paſſage of the urine, if not all, are attended with nearly the ſame ſymptoms, ſo that there are hardly ſufficient marks for diſtinguiſhing the different cauſes. Few take notice of the firſt ſymptoms of a ſtricture till they have either become violent, or have been the cauſe of other inconveniences. For inſtance, a patient ſhall have a conſiderable ſtricture without obſerving that he does not make water freely; he ſhall even have, in conſequence of a ſtricture, a tendency to inflammation, and ſuppuration in the perinæum, and not feel any obſtruction to the paſſage of his urine, nor ſuſpect that he has any other complaint than the inflammation in the perinæum. In all of theſe obſtructions the ſtream of water becomes ſmall, and that in proportion to the obſtruction; but this ſymptom, though probably

ably it is the firſt, is not always obſerved by the patient. In ſome the water is voided only in drops, and then it cannot eſcape notice; in others the ſtream of urine is forked, or ſcattered: under ſuch circumſtances the paſſage ſhould be examined with a bougie; and if one of a common ſize paſſes with tolerable eaſe, the fifth cauſe of obſtruction is to be ſuſpected, which will moſt probably be found to be a ſwelled proſtate gland; for any other cauſe that can produce a compreſſion of the ſides of the urethra, ſufficient to obſtruct the urine, will be known to the patient, ſuch as a tumor forming any where along the canal, or an inflammation along its ſides. If therefore neither of theſe are known to exiſt, the proſtate gland ſhould be examined, as will be deſcribed hereafter.

The ſpaſmodic obſtruction will commonly explain itſelf when the ſymptoms are well inveſtigated; for the obſtruction ariſing from this cauſe will not be permanent. Theſe obſtructions, but more particularly that from a permanent ſtricture, is generally attended with a diſcharge of matter or a gleet. This is often conſidered by the patient as the whole diſeaſe, and he applies to the ſurgeon for the cure of a gleet. The ſurgeon often perſeveres in attempting the cure of this diſeaſe; but, no ſucceſs attending him, at laſt other ſymptoms are obſerved, and a ſtricture is ſuſpected either by the ſurgeon or patient. In diſeaſes of this paſſage, and alſo of the proſtate gland and bladder, there is commonly an uneaſineſs about the perinæum, anus, and lower part of the abdomen; and the patient can hardly croſs his legs without pain.

CHAPTER

CHAPTER II.

OF THE PERMANENT STRICTURE.

IN the permanent ſtricture* the patient ſeldom complains till he can hardly procure a paſſage for the urine; and frequently has a conſiderable degree of ſtrangury, and even other ſymptoms that happen in ſtone and gravel, which are therefore too frequently ſuppoſed to be the cauſes of the complaint. The diſeaſe generally occupies no great length of the paſſage; at leaſt in moſt of the caſes that I have ſeen, it extended no further in breadth than if the part had been ſurrounded with a piece of packthread; and in many it had a good deal of that appearance. I have however ſeen the urethra irregularly contracted for above an inch in length, owing to its coats, or internal membrane, being irregularly thickened, and forming a winding canal.

A ſtricture does not ariſe in all caſes from an equal contraction of the urethra all round, but in ſome from a contraction of one ſide, which probably has given the idea of its having ariſen from an ulcer on that ſide. This contraction of one ſide only throws the paſſage to the oppoſite ſide, which often renders it difficult to paſs the bougie. The contracted part is whiter than any other part of the urethra, and is harder in its conſiſtence. In ſome few caſes there are more ſtrictures than one. I have ſeen half a dozen in one urethra; ſome of which were more contracted than others; and indeed many urethras, that have a ſtricture, have ſmall tightneſſes in other parts of them. This we learn from ſucceſſive reſiſtence felt in paſſing the bougie.

Every part of the urethra is not equally ſubject to ſtrictures, for there appears to be one part which is much more liable to them than the whole of the urethra beſides, that is about the bulbous part. We find them how-

* Vide plate I, fig. 1.

ever ſometimes on this ſide of the bulb, but very ſeldom beyond it. I never ſaw a ſtricture in that part of the urethra which paſſes through the proſtate gland; and the bulb, beſides being the moſt frequent ſeat of this diſeaſe, has likewiſe ſtrictures formed there of the worſt kind. They are generally ſlow in forming, it being often ſeveral years from their being perceived before they become very troubleſome.

The ſame ſtricture is not at all times equally bad; for we find that in warm weather it is not nearly ſo troubleſome as in cold. Theſe changes are often very quick. A cold day, even an hour of cold weather, ſhall produce a change in them; and the ſame ſtricture is almoſt always worſe in winter than in ſummer. However this obſervation is not free from exceptions, I knew one caſe that was always worſe in the ſummer. There are other circumſtances, beſides cold, that make a ſtricture worſe. A gentleman, who had an ague, always found the ſtricture increaſed during the fit. It is alſo increaſed by drinking, violent exerciſe, and by the retention of urine after an inclination to void it has been felt. This laſt cauſe is often ſo great as to produce a total ſtoppage for a time. It is ſometimes rendered much worſe by a ſmall calculus paſſing from the bladder, of the formation of which this ſtricture was probably the cauſe. The calculus not paſſing will produce a total ſtoppage of urine, the cauſe of which can hardly be known at the time; and if known it could not be remedied without an operation.*

It is impoſſible to ſay what is the cauſe of that alteration in the ſtructure of the urethra which diminiſhes the canal: it has been aſcribed to the effects of the venereal diſeaſe, and often to the method of cure. But I doubt very much if it commonly, or even ever, ariſes from theſe cauſes; yet as moſt men have had venereal complaints ſome time or other, it is natural to aſcribe the ſtricture to them; and therefore it may be very difficult to refute this opinion. Many reaſons however can be given why we ſhould ſuppoſe that it is not commonly a conſequence of a venereal inflammation. Strictures are common to moſt paſſages in the human body; they are often to be found in the œſophagus; in the inteſtines, eſpecially the rectum; in

* Vide plate IV.

the

the anus; in the prepuce producing phymoſis; in the lachrymal duct producing the diſeaſe called fiſtula lacrymalis, where no diſeaſe had previouſly exiſted. They ſometimes happen in the urethra where no venereal complaint has ever been. I have ſeen an inſtance of this kind in a young man of nineteen, who had had the complaint for eight years, and which therefore began when he was only eleven years of age. It was treated at firſt as ſtone, or gravel. He was of a ſcrofulous habit, the lips thick, the eyes ſore, a thickened cornea of one eye, and the general habit weak. This ſtricture was in the uſual place, about the membranous part of the urethra. I have ſeen an inſtance of a ſtricture in the urethra of a boy of four years, and a fiſtula in perinæo in conſequence of it. They are as common to thoſe who have had the gonorrhœa ſlightly, as thoſe who have had it violently.

I knew a young gentleman who had a very bad ſtricture. He had had ſeveral gonorrhœas, but they were ſo ſlight that they ſeldom laſted a week; nor in any of them did the pain extend beyond the frænum; but the ſtricture was about the membranous part. Caſes of this kind occur every day. They are never found to come on during the venereal inflammation, nor for ſome time after the infection is gone. There have been thirty, and ſometimes forty, years between the cure of a gonorrhœa and the beginning of a ſtricture, the health being all that time perfectly good. If they aroſe in conſequence of the venereal inflammation, we might expect to find them of ſome extent, becauſe the venereal inflammation extends ſome way; and we ſhould alſo expect to find them moſt frequent in that part of the urethra which is moſt commonly the ſeat of the venereal diſeaſe. But I remarked before, that they are not ſo frequent there as they are in other parts of the urethra.

It is ſuppoſed by many, that ſtrictures ariſe from the uſe of injections in the cure of the gonorrhœa; but this opinion appears to be founded in prejudice; for I have ſeen as many ſtrictures after gonorrhœas, that have been cured without injections, as after thoſe cured with them.

Such modes of accounting for ſtrictures give no explanation of thoſe where there has been no previous gonorrhœa, or where the gonorrhœa has not been cured by injections; and indeed if we conſider the mode of cure of ſtrictures we muſt ſee that an injection is a mild application to the urethra, compared to a bougie; yet a bougie has never been ſuppoſed, or known to be

the cauſe of a ſtricture. Further, ſome have injected by miſtake very irritating liquors, ſuch as the undiluted extract of lead, and cauſtic alkali, without giving the leaſt tendency towards a ſtricture, although they produced violent inflammation, and even ſloughing of the internal membrane of the urethra.

By many they have been ſuppoſed to have ariſen from the healing of ulcers in the urethra; but as I never ſaw an ulcer in theſe parts, except in conſequence of a ſtricture, and as I do not believe there ever is an ulcer in the caſe of a common gonorrhœa, I can hardly ſubſcribe to that opinion.

I. OF THE BOUGIE.

The bougie, with its application, is, perhaps, one of the greateſt improvements in ſurgery, which theſe laſt thirty or forty years have produced. When I compare the practice of the preſent day with what it was in the year 1750, I can ſcarcely be perſuaded that I am treating the ſame diſeaſe. I remember, when about that time, I was attending the firſt hoſpitals in this city, the common bougies were either a piece of lead*, or a ſmall wax candle; and although the preſent bougie was known then, yet a due preference was not given to it, or its particular merit underſtood, as we may ſee from the publications of that time.

Daran was the firſt, who improved the bougie and brought it into general uſe. He wrote profeſſedly on the diſeaſes for which it is a cure, and alſo of the manner of preparing it; but he has introduced ſo much abſurdity in his deſcriptions of the diſeaſes, the modes of treatment, and of the powers and compoſition of his bougies, as to create diſguſt. However, this abſurdity has been much more effectual in introducing the bougie into univerſal uſe, than all the real knowledge of that time, directed by good ſenſe, could have been. Such extravagant recommendations of particular remedies are not at

* When lead was uſed in place of bougies, it has happened that a piece of the end has broken off in the bladder, which has been diſſolved by injecting quickſilver. I at firſt ſuſpected that quickſilver could not come in contact with lead, while in water, ſo as to diſſolve it, but upon making the experiment I found it ſucceeded.

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al times without their uſe. Inoculation would have ſtill been practiſed with caution, had it not been for the enthuſiaſm of the Suttons. Preparations of lead would not have been ſo univerſally applied if they had not been recommended by Goulard in the moſt extravagant terms; nor would the hemlock have come into ſuch general uſe, if its true merits only had been held forth. Improvements are often over-rated; but they come to their true value at laſt: Sutton has told us, that the cold regimen, in extreme, is infinitely better than the old method; but from general practice we have learned that moderation is beſt, which is all we yet know.

When Daran publiſhed his obſervations on the bougie, every ſurgeon ſat to work to diſcover the compoſition, and each conceived that he had found it out, from the bougies he had made producing the effects deſcribed by Daran. It never occurred to them that any extraneous body, of the ſame ſhape and conſiſtence, would do the ſame thing.

II. OF THE TREATMENT OF THE PERMANENT STRICTURE.

The cure of the permanent ſtricture is, I believe, to be accompliſhed only by local applications. Mercury has been given upon the erroneous ſuppoſition of its being venereal; but without ſucceſs. The cure is either a dilatation of the contracted part, or a deſtruction of it by ulceration, or eſcharotics. The dilatation is performed by the bougie; and this is ſeldom or ever more than a temporary cure; for although the paſſage may be dilated ſufficiently for the urine to paſs, yet there is always the original tendency to contraction, which generally recurs ſooner or later*. The ulcerative proceſs

* In caſes of ſtricture, when a patient applies for relief, it may often be proper to inquire into the hiſtory of the caſe, previous to the paſſing of a bougie; eſpecially to inquire if he ever uſed bougies before; if he has, then to inquire into the reſult; if they paſſed readily, or if they did not paſs the ſtricture at all: if the firſt, then nothing further need be aſked; but if the laſt, then to inquire if he or his ſurgeon obſerved that they were gaining ground with the bougie, viz. If the bougie went further in before it was left off than at firſt; if ſo, then to aſk him how far. If they have viſibly gained ground without getting through the ſtricture, I am afraid that the uſe of the bougie muſt not be purſued, becauſe it is moſt probable that a new paſſage has been formed, which makes the paſſing of the bougie into the ſtricture impoſſible.

is alſo effected by a bougie, and the deſtruction by eſcharotics, is by means of cauſtics. It often happens in ſtrictures, that the paſſage is ſo diminiſhed as hardly to allow any water to paſs, producing often a total ſtoppage; nor will a bougie immediately paſs; and if it can be made to paſs, yet no water follows it when withdrawn. In ſuch caſes therefore we muſt have recourſe to the means that afford a temporary relief; ſuch as the warm bath, which counteracts the effects of cold, and quiets any ſpaſms that may have taken place in the parts, and clyſters with opium, which have ſtill more effect. Producing an evacuation by ſtool, often leſſens the ſpaſm; for a ſpaſmodic ſuppreſſion of urine frequently ariſes from a conſtipation, even where there is no ſtricture.

The cure by dilatation is, I imagine, principally mechanical, when performed by bougies, the powers of which are in general thoſe of a wedge. However, the ultimate effect of them is not always ſo ſimple, as that of a wedge upon inanimate matter; for preſſure produces action of the animal powers, either to adapt the parts to their new poſition, or to recede by ulceration, which gives us two very different effects of a bougie, and of courſe two different intentions in applying them; one to produce dilatation, the other ulceration; which laſt is not always ſo readily effected.

It generally happens, as has been already obſerved, that the diſeaſe has gone conſiderable lengths before application has been made for a cure, and therefore the ſtricture has become conſiderable, in ſo much that it is often with great difficulty that a ſmall bougie can be made to paſs. If the caſe is ſuch as will readily admit the end of a ſmall bougie to paſs, let it be ever ſo ſmall, the cure is then in our power. It often happens, however, that the ſtricture is ſuch, as will reſiſt the paſſing of a ſmall bougie at firſt, and even after repeated trials. Yet it is neceſſary to perſevere with the ſmall bougie; for ſometimes it happens, that the paſſage through the ſtricture is not in a line with the urethra itſelf, which of courſe obſtructs the bougie; ſuch ſtrictures, I ſuſpect, are not equally placed all round ſo as to throw the ſmall paſſage remaining into the centre of the canal.

In many caſes, where the ſtricture is very conſiderable, much trouble is given by occaſional ſpaſms, which will either reſiſt the bougie altogether, or only let a very ſmall one paſs; though at another time they will admit

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one larger. In ſuch caſes I have been able to get the point of the bougie ſometimes to enter, by rubbing the perinæum externally with the finger of one hand, while I puſhed the bougie on with the other. This, though it does not always ſucceed, yet is worth the trial. Whether it alters the poſition of the ſtricture, ſo as to give entrance to the point of the bougie, or by ſympathy removes the ſpaſm, I will not abſolutely determine; but, I believe, it rather acts by ſympathy. In ſuch caſes of ſpaſm in the ſtricture, I have often ſucceeded by letting the bougie remain a little while cloſe to the ſtricture, and then puſhing it on; this mode ſo often ſucceeds, that it ſhould always be attempted when the bougie does not paſs, or only paſſes occaſionally. This will be mentioned more fully when we ſhall conſider the ſpaſmodic ſtricture.

The ſpaſm may probably be taken off by dipping the glans penis into cold water, which ſucceeds ſometimes in the common ſtrangury; but this cannot be ſo eaſily done while a bougie is in the paſſage.

In caſes of a permanent ſtricture, though the bougie does not at firſt paſs, yet, after repeated trials, it will every now and then find its way, which helps to render a future trial more certain and eaſy. It however too often happens that the future ſucceſs does not immediately depend upon paſſing the bougie once or twice; for it ſhall paſs to-day and not to-morrow; and this uncertainty ſhall laſt for weeks, notwithſtanding every trial we can make; yet I may obſerve, that in general its introduction becomes gradually leſs difficult, and therefore in no caſe ſhould we deſpair of ſucceſs. It is imagined by ſome that the beſt time for trial in theſe caſes is juſt after making water, as the paſſage is ſuppoſed to be clear and more in a ſtraight line; but this is not confirmed by practice.

It is not an eaſy matter in caſes where the paſſage is very ſmall, to know whether the bougie has entered the ſtricture or not; for ſuch ſlender bougies as muſt generally be uſed at firſt, bend ſo very eaſily, that the introducer is apt to think it is paſſing, while it is only bending. A ſurgeon, however, ſhould in general firſt make himſelf acquainted with the ſituation of the ſtricture, by a common ſized bougie, and afterwards make uſe of a ſmaller one, and when he comes to the ſtricture, puſh gently, and for a little time only. If the bougie has paſſed further into the penis, he will know how far

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it has entered the ſtricture by taking off the preſſure from the bougie; for if it recoil he may be ſure that it has not paſſed, at leaſt has not paſſed far but only bent; for the natural elaſticity of the bougie, and the direction of the paſſage having been altered by it, will force it back again. But if it remain fixed, and do not recoil, he may be ſure that it has entered the ſtricture.

In uſing a very ſmall bougie, however, theſe obſervations are not ſo applicable, for it may be bending, or bent, without being perceptible. It often happens, that a bougie will enter only a little way, perhaps not more than one tenth of an inch, and then bend if the preſſure be continued. To determine whether this be the caſe, it is neceſſary to withdraw the bougie and examine its end; if the end be blunted, we may be ſure the bougie has not entered in the leaſt; but if it be flattened for an eighth or tenth of an inch, or grooved, or have its outer waxy coat puſhed up for that length; or if there be a circular impreſſion made upon the bougie, where the ſtricture is, or only a dent on one ſide, both of which laſt I ſuſpect ariſe from ſpaſm at the time, we may then be ſure that it has paſſed as far as theſe appearances extend. It becomes then neceſſary to introduce another exactly of the ſame ſize, and in the ſame manner, and to let it remain as long as the patient can bear it, or convenience will allow; and by repeating this we may overcome the ſtricture. Sometimes we can judge of its having entered the ſtricture, by pulling it gently out; for if it ſtick a little at the firſt pull, we may be certain it has entered; but the appearance of the bougie itſelf will give the beſt information.* In ſuch caſes I have always directed my patient to preſerve the bougie for my inſpection, exactly in the ſame form

* It may be remarked, that there are ſome lacunæ (Vide plate I, fig. 2.) near, and alſo a little way from the glans penis, which often ſtop the bougie, and give at firſt the idea of a ſtricture. I have known them taken for ſuch; and when the bougie ſtops ſo near to the glans this is to be ſuſpected, and therefore we ſhould vary the direction of the point of the bougie, bearing it againſt the under ſide of the urethra. When the bougie ſtops in one of thoſe lacunæ I think that the patient appears to have more pain than from a real ſtricture. The valvular part of the proſtate gland formed by diſeaſe, (Vide plate V.) very often obſtructs the bougie, and is taken for a ſtricture by thoſe who are not well acquainted with the different obſtructions in this canal; and by thoſe who are, it is a means of diſcovering diſeaſe in this part; and indeed in a natural ſtate of parts I think I can aſcertain when I come to this part with a bougie.

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it was when it was withdrawn. But when it paſſes with eaſe this nicety is not neceſſary.

The time, that each bougie ought to remain in the paſſage, muſt be determined by the feelings of the patient; for it ſhould never give pain, if poſſible. To go beyond this point is to deſtroy the intention, to increaſe the very ſymptoms that are meant to be relieved, and to produce irritation, which for a time renders the further application of the bougie improper. While the bougie is paſſing, if the patient feel very acutely, it ſhould not be left in the urethra above five, or at moſt ten minutes, or not ſo long if it give great pain; and each time of application ſhould be lengthened ſo gradually, as to be inſenſible to the feelings of the patient, and the irritability of the parts. I have known it days, nay in many patients weeks, before they could allow the bougie to remain in the paſſage ten, or even five minutes, and yet in time they have been able to bear it for hours, and at laſt without any difficulty. The beſt time to let it remain in the paſſage is when the patient has leaſt to do; or in the morning, while he is in bed, provided he can introduce it himſelf.

The bougie ſhould be increaſed in ſize, according to the facility with which the ſtricture dilates, and the eaſe with which the patient bears the dilatation. If the parts are very firm, or very irritable, the increaſe of the ſize of the bougie ſhould be ſlow, gradually ſtealing upon the parts, and allowing them to adapt their ſtructure to the increaſed ſize. But if the ſenſibility of the parts will allow of it, the increaſe of the ſize of the bougie may be ſomewhat quicker, though never more quick than the patient can bear with eaſe. The increaſe ſhould be continued till a bougie of the largeſt ſize paſſes freely; nor ſhould this be laid aſide till after three weeks, or a month, in order to habituate the dilated part to its new poſition, or to take off the habit of contracting from the part as much as poſſible; but, as was obſerved before, the permanency of this cure can ſeldom be depended upon.

Inſtead of proceeding with the caution recommended, it has been practiſed with ſucceſs for a time, to force a common ſized bougie through a ſtricture that only allowed a ſmall one to paſs. This, I ſuppoſe, either tore the ſtricture or weakened it by ſtretching it ſuddenly ſo as to render it unable to recover its contractile power for a conſiderable time after. I have ſeen

where this has produced good effects, and for a time removed the permanent ſtricture, and prevented ſpaſm. This is a practice, however, which I have never tried; having always preferred the mild treatment where I could paſs a bougie.

I have known the paſſing of the bougie remove, almoſt immediately, a ſwelling of the teſticle, which had ariſen from the ſtricture; therefore ſuch a ſymptom ſhould not prevent the uſe of the bougie.

In caſes of ſtrictures, where the bougie is uſed, the patient is commonly in other reſpects well, and is with difficulty perſuaded to reſtrain from his common habits, often making too free in eating, drinking, and exerciſe; which are all in many caſes pernicious, more eſpecially where inflammation and ſuppuration have taken place. It is therefore the duty of the ſurgeon to reſtrict the patient for ſome time within certain bounds, till he finds by trials what the parts are capable of bearing without producing inflammation.

III. OF THE CURE OF STRICTURE BY ULCERATION.

The cure of a ſtricture by means of ulceration is likewiſe effected by a bougie. This method may be employed both in caſes where a bougie will, and where it will not paſs. In the firſt caſe there is not the ſame neceſſity for ulceration as in the ſecond, becauſe where a bougie will paſs there is no immediate danger ariſing from the ſtricture, which may therefore be dilated, as has been already deſcribed. But if this method ſhould be preferred to a ſlow dilatation, which allows the parts time to adapt themſelves to their new poſition, the ſtricture may be deſtroyed by producing ulceration in the parts, eſpecially if they are not irritable, but admit of conſiderable violence.

When this is intended, the bougie ſhould be introduced as far into the ſtricture as poſſible, and the ſize of it increaſed as faſt as the ſenſations of the patient can well bear. This will produce ulceration in the part preſſed, which is a more laſting cure, becauſe more of the ſtricture is deſtroyed than when the parts are ſimply dilated. I believe, however, there are few patients that will ſubmit to this practice; and indeed few will be able to bear it;

it; for I have ſeen it bring on violent ſpaſms in the part, which have produced ſuppreſſion of urine, and proved very troubleſome. Therefore as there is no abſolute neceſſity in ſuch caſes for purſuing this method, I do not recommend it as a general practice, although there have been caſes in which it has ſucceeded. Where this method is to be practiſed, it might probably be right to accuſtom the paſſage to a bougie for ſome time before ſuch violence is uſed.

If the ſmalleſt bougie, which can poſſibly be made, cannot be made to paſs by ſome degree of force, dilatation becomes impracticable, and it is neceſſary that ſomething elſe ſhould be done for the relief of the patient; for the deſtruction of the ſtricture muſt be effected. In many caſes it may be proper to attempt this by ulceration of the part; for we find from experience, that a ſtricture may be removed by the ſimple preſſure of a bougie. This effect muſt ariſe from the irritation of abſorption being given to the diſeaſed part, which from the ſtricture not being an originally formed part, nor having any power of reſiſtence, equal to the original one, is more ſuſceptible of ulceration, and thereby is abſorbed. The bougies which are only to produce ulceration in conſequence of their being applied to the ſtricture, need not be ſo ſmall as in the former caſes, as they are not intended to paſs; and by being of a common ſize they will alſo be more certain in their application to the ſtricture. The force, applied to a bougie, in this caſe ſhould not be great; for a ſtricture is the hardeſt part of the urethra; and if a bougie is applied with a conſiderable degree of preſſure, and left in the paſſage, it ſometimes happens that the end of it ſlips off the ſtricture before there is time for ulceration, and makes its way into the ſubſtance of the corpus ſpongioſum by the ſide of the ſtricture; and if the preſſure be continued ſtill longer, it will make a new paſſage beyond the ſtricture in the corpus ſpongioſum urethræ.* This more readily happens if the ſtricture be in the bend of the canal, as in ſuch caſes the bougie can hardly be applied exactly to it, not having the ſame curve. Such miſchief I have ſeen more than once; and ſometimes the bougie has been puſhed ſo far as to make its way into the rectum.

* Vide plate II.

It often requires a conſiderable time before the whole is ſo far ulcerated as to admit the bougie, and this tires the patient and almoſt makes him deſpair of a cure. In this proceſs great attention ſhould be paid to the ſeeming progreſs of the cure; for if it appears to the ſurgeon that he is gaining ground by the bougie paſſing further in, and yet the patient does not make water better in the leaſt, then he may be ſure that he is forcing a new paſſage.*

When the ſtricture has ſo far yielded to theſe means as to admit a ſmall bougie, the dilatation is to be made as in the former caſe where a bougie paſſed at firſt. Whenever a bougie of a tolerable ſize, paſſes with eaſe, and the parts and patient have become accuſtomed to it, it is no longer neceſſary that the ſurgeon ſhould continue to paſs it; the patient may be allowed to introduce bougies himſelf; and when he can do it readily, the buſineſs may be truſted to him, as he can make uſe of them at the moſt convenient times, ſo that they may be applied longer at a time and oftener, the ſurgeon only attending occaſionally. This practice of the patient under a ſurgeon's eye, by which he is taught how to paſs them, becomes more neceſſary, as ſtrictures are diſeaſes that commonly recur; and therefore no man, who has ever had a ſtricture, and is cured of it, ſhould rely on the cure as laſting, but ſhould be always prepared for a return; and ſhould always have ſome bougies by him. He ſhould not go a journey, even of a week, without them; and the number ſhould be according to the time he is to be abſent, or to the place whither he is going; for in many parts of the world he cannot be ſupplied with them. The bougies for ſuch purpoſe ſhould be of different ſizes, as it is uncertain in what degree the diſeaſe may return.

Bougies, in all caſes, from their ſhape, and from the action of the parts, readily ſlip out, whereby the cure is retarded; but it is much worſe when they paſs into the bladder; which can only take place in caſes where the ſtricture is in ſome meaſure overcome. The conſequence of a bougie paſſing into the bladder muſt at once appear in its fulleſt force to every one;

* This makes it neceſſary in all caſes of ſtrictures where bougies will not paſs, to be very particular in our inquiries, whether the patient has uſed bougies formerly; and whether there may not be reaſon to believe that they had taken a wrong direction.

it ſubjects the patient in moſt caſes to be cut as for the ſtone; and indeed if it is either not ſoon thrown out, or cut out, it becomes the baſis of a ſtone. A young man was cut for a bougie only a fortnight after it had paſſed into the bladder, and it was almoſt wholly cruſted over with calculous matter. Bougies have been known to be forced out of the bladder along with the water by the action of that viſcus, and in ſeveral folds. It is probable that the bladder in a natural ſtate has not power ſufficient to perform ſuch an action; but we ſhall ſhow that in caſes of ſtrictures where the reſiſtence to the paſſing of the water is very much increaſed, the ſtrength of the bladder becomes proportionably greater. This happens principally in ſtrictures of long ſtanding.

Such accidents are often obſerved before the outer end of the bougie has got beyond the projecting part of the penis, but even then it is difficult of extraction. I have ſucceeded in ſome of theſe caſes by fixing the bougie in the urethra ſome way below its end; for inſtance, in the perinæum, by preſſing againſt it with one hand, and puſhing back the penis upon the bougie with the other hand; then laying hold of the penis upon the bougie, removing the preſſure below, and drawing the whole up; and by performing theſe two motions alternately, I have been able to lay hold of the end of it. However, this does not always ſucceed, for when the bougie is either ſmall, or becomes ſoft, it will not admit of the penis being puſhed down upon it without bending; or if the thick end of the bougie has got beyond the moveable, or projecting part of the penis, then this mode of treatment becomes impracticable. I have ſucceeded in theſe laſt caſes with the forceps for extracting the ſtone out of the urethra; but if it has got into the bend of the urethra, this practice will alſo fail; and in ſuch a ſtate it would be moſt adviſeable to paſs a catheter down to it, and cut upon that; and probably the abovementioned forceps, introduced through the wound, might then lay hold of its end; or by cutting a little further, ſo as to expoſe ſome part of the bougie, it might be eaſily extracted, without the neceſſity of cutting into the bladder. This part of the operation, however, would be very difficult in a fat or luſty man.

To prevent the inconveniency of the bougie coming out, or the miſchief of its paſſing in, it is neceſſary to tie a ſoft cotton thread round that end of the

the bougie which is out of the urethra, and then round the root of the glans. This laſt part ſhould be very looſe, for an obvious reaſon; and the projecting part of the bougie ſhould alſo be bent down upon the penis, which makes it both leſs troubleſome, and more ſecure.

IV. OF THE APPLICATION OF A CAUSTIC TO STRICTURES.

When a bougie can readily paſs, there is no neceſſity for uſing any other method to remove the ſtricture: but there are too many caſes where a bougie cannot be made to paſs, or ſo ſeldom that it cannot be depended upon for a cure. This may ariſe from ſeveral cauſes. Firſt, the ſtricture may be ſo tight as not to allow the ſmalleſt bougie to paſs. Secondly, the orifice in the ſtricture may not be in a line with the urethra, which will make it uncertain, if not impoſſible, to paſs a bougie. Thirdly, there may be no paſſage at all, it having been obliterated by diſeaſe, and the urine diſcharged by fiſtulæ in perinæo.

The firſt very rarely occurs, for if the paſſage in the ſtricture be in a line with the general canal, a ſmall bougie will commonly paſs; and although it may not readily do ſo upon every trial, it will be ſufficient to make way for another bougie, which is all that is wanted.

The ſecond caſe, where the canal is not in a line with the common paſſage, may ariſe from three cauſes. Firſt, when the ſtricture is in the bend of the urethra, although the paſſage through it may be in the centre of the canal, yet as the bougie cannot have the exact curve, it will be very uncertain in its application. Secondly, from an irregularity in the formation of the ſtricture, which may throw the paſſage to one ſide, even in the ſtraight part of the urethra; and thirdly, from ulceration having taken place, producing fiſtulæ in perinæo, which often make the canal irregular in its courſe.

The third caſe where the application of the cauſtic may be neceſſary, is where there is no paſſage at all, which happens from ulceration and abſceſſes in the perinæum opening externally; and in the healing of them the paſſage is often cloſed up entirely. In all the abovementioned caſes I have ſucceeded with the cauſtic beyond expectation.

If

If the obſtructions are any where between the membranous part of the urethra and the glans, where the canal is nearly ſtraight, or can eaſily be made ſo by the introduction of a ſtraight inſtrument, it becomes an eaſy matter to deſtroy them by cauſtic; but if beyond that, it becomes then more difficult; however at the beginning of the bend of the urethra the obſtruction may be ſo far removed as to admit of the paſſing of a bougie, or at leaſt to procure a tolerably free paſſage for the urine. I have ſeen ſeveral caſes where it was thought neceſſary to follow this practice, and it ſucceeded ſo well that after a few touches with the cauſtic the bougie could be paſſed, which is all that is wanted. The ſucceſs in theſe caſes was ſuch as would incline me to have recourſe to this practice very early; indeed whenever I could not paſs a ſmall bougie through the ſtricture. I look upon the cauſtic as a much ſafer method than uſing preſſure with a bougie, for the reaſon beforementioned, that is, on account of the danger of making a new paſſage, without deſtroying in the leaſt any part of the obſtruction.

Moſt of the ſtrictures which I ever examined after death, appeared to have been in the power of ſuch treatment; however, I have ſeen one or two caſes, where the contraction was of ſome length and irregular, which would have puzzled me if I had attempted the cure with the cauſtic; becauſe I ſhould have been apt to ſuſpect that I was making a new paſſage by my gaining ground, and yet not relieving the patient by the removal of the ſymptoms.

I have often tried this practice in ſtrictures where there were alſo fiſtulæ in the urethra, and where the water came through different paſſages. Such caſes were not the moſt favourable; yet I ſucceeded in the greater part of them, that is, I overcame the ſtricture and could paſs a bougie freely. I have ſeen ſeveral caſes of fiſtulæ of theſe parts, where the natural paſſage was obliterated by the ſtricture, in which I have ſucceeded with the cauſtic, and the fiſtulous orifices have readily healed.

It does not happen always in caſes of obſtruction to the paſſage of the urine, that when the obſtruction is removed by the cauſtic, and the water of courſe paſſes freely, a bougie will alſo paſs. This I apprehend ariſes from the cauſtic not having deſtroyed the ſtricture in a direct line with the urethra, ſo as to allow a bougie to catch the ſound urethra beyond. But this

this appears to me of little conſequence, as it is as much in the power of the bougie to prevent a return at this part as if it had paſſed on to the bladder; for if the water flows readily, it is certain that the cauſtic has gone beyond the ſtricture, although it may not be in a direct line, and that the only riſk of a return of obſtruction will be at the old ſtricture; but as a bougie can now paſs beyond that part, it does as much good as if it paſſed into the bladder; for I have known ſeveral caſes where the bougie appeared to have the ſame effect as if it had paſſed on to the bladder.

The application of the cauſtic need not be longer than a minute, and it may be repeated every day, or every other day, allowing time for the ſlough to come off. But there are other cauſes that may prevent the repetition of the cauſtic, beſides waiting for the ſeparation of the ſlough; for ſometimes the uſe of it brings on irritation, inflammation, or ſpaſm in the part, which frequently occaſions a total ſuppreſſion of urine for a time, againſt which all the means, uſed commonly on ſuch occaſions to procure relief, muſt be employed, and we muſt wait till theſe ſymptoms are gone off. If the patient can make water immediately after the application it will be proper; as it will waſh away any cauſtic that may have been diſſolved in the paſſage, which if left would irritate the parts. A little water injected into the urethra will anſwer the ſame purpoſe.

About the year 1752, I attended a chimney-ſweeper labouring under a ſtricture. He was the firſt patient I ever had under this diſeaſe. Not finding that I gained any advantage after ſix months trial with the bougie, I conceived that I might be able to deſtroy the ſtricture by eſcharotics;* and my firſt attempt was with red precipitate. I applied to the end of a bougie ſome ſalve, and then dipped it into red precipitate. This bougie I paſſed down to the ſtricture; but I found that it brought on conſiderable inflammation all along the inſide of the paſſage, which I attributed to the precipitate being rubbed off in paſſing the bougie. I then introduced a ſilver cannula down to the ſtricture, and through this cannula paſſed the bougie with precipitate as before. Not finding, however, that the patient made water any better, and not as yet being able to paſs the ſmalleſt bougie

* Having lately looked over ſome authors on this diſeaſe, I find that this is not a new idea.

through

through the ſtricture, I ſuſpected, that the precipitate had not ſufficient powers to deſtroy it. I therefore took a ſmall piece of lunar cauſtic, and faſtened it on the end of a wire with ſealing wax, and introduced it through the cannula to the ſtricture. After having done this three times, at two days interval, I found that the man voided his urine much more freely. Upon the application of the cauſtic a fourth time, my cannula went through the ſtricture.* A bougie was afterwards paſſed for ſome little time till he was perfectly well.

Having ſucceeded ſo well in this caſe, I was encouraged to apply my mind to the invention of ſome inſtrument better ſuited to the purpoſe than the beforementioned, which I have in ſome degree effected, although it is not yet perfectly adapted to all the ſituations of ſtricture in the urethra. The cauſtic ſhould be prevented from hurting any other part of the canal; which is beſt done by introducing it through a cannula to the ſtricture, making it protrude a little beyond the end of the cannula, by which it acts only upon the ſtricture. The cauſtic ſhould be fixed in a ſmall portcrayon. It is neceſſary to have a piece of ſilver of the length of the cannula, with a ring at one end, and a button at the other of the ſame diameter with the cannula, forming a kind of plug, which ſhould project beyond the end of the cannula that enters the urethra, by which means it makes a rounded end; or the portcrayon may be formed with this button at the other end. The button being introduced into the cannula, it ſhould be paſſed into the urethra, and when it reaches the ſtricture the ſilver plug ſhould be withdrawn, and the portcrayon with the cauſtic introduced in its place; or, if the plug and portcrayon are on the ſame inſtrument, then it is only withdrawing the plug, and introducing the portcrayon with the cauſtic. This plug, beſides giving a ſmooth rounded end to the cannula, anſwers another good purpoſe, by preventing the cannula from being filled with the mucus of the urethra, as it paſſes along, which mucus would be collected in the end of it, diſſolve the cauſtic too ſoon, and hinder its application to the ſtricture.†

* Wiſeman had the ſame idea, but probably the clumſy way in which he attempted to put it in execution might be the reaſon why he ſeems not to have purſued it.

† Vide plate III, fig. 1.

If the ſtricture be in the bend of the urethra, the cannula may be bent at the end alſo; but it becomes more difficult to introduce a piece of cauſtic through ſuch a cannula, for the plug and portcrayon muſt alſo be bent at the end, which cannot be made to paſs through the ſtraight part of the cannula; but this I have in ſome meaſure obviated by having the cannula made flexible, except at the end where it is to take the curve.*

After the bougie can be made to paſs, the caſe is to be treated as a common ſtricture, either by dilating it ſlowly, or by quickly increaſing the ſize of the bougie, and thus continuing the ulceration.

There are ſometimes more ſtrictures than one; but it ſeldom happens that they are all equally ſtrong. One only becomes the object of our attention. The ſmaller ones may, however, be ſufficient to hinder the paſſing the cannula to that which is to be deſtroyed by the cauſtic. When that is the caſe, thoſe ſmall ſtrictures are to be dilated with bougies, as in common, till they are ſufficiently large to allow the cannula to paſs.

* Vide plate III, fig. 2 and 3.

CHAPTER

CHAPTER III.

OF STRICTURES IN WOMEN.

OBSTRUCTIONS to the urine in women, I believe, generally ariſe from ſtricture, although not always; for I have known them produced by compreſſion from ſome adjacent ſwelling; and they are common in uterogeſtation, as alſo in dropſical or ſcirrhous ovaria. But ſuch cauſes are commonly known long before this effect is produced, by which the ſuppreſſion is eaſily accounted for. It may alſo ariſe from excreſcences as in men.

How far a ſtricture, in the urethra of this ſex, is really a conſequence of a venereal inflammation, I am not certain; but I ſhould ſuppoſe it is not; and for ſtronger reaſons ſtill than thoſe which I gave in ſpeaking of the cauſe of ſtrictures in men; for I can ſay, that none of the ſtrictures that I have ſeen in women, have ariſen in conſequence of this diſeaſe; at leaſt I had no reaſon to believe that they did; and I have obſerved before, that in moſt women, who have the venereal diſeaſe in the form of a gonorrhœa, it ſeldom attacks the urethra. Therefore if we find a ſtricture in a woman, who has had the diſeaſe, we are not to impute it to that, at leaſt till we can aſcertain the urethra was affected; and even then it will remain doubtful.

Strictures are not near ſo common in women as in men. This may be owing to the great difference in the length of the two canals; but more eſpecially to the canal in women being more ſimple, and intended only for one purpoſe. The ſtricture in women does not produce ſuch a variety of ſymptoms, or ſo much miſchief, as in men, there not being ſo many parts to be affected.

I. OF THE CURE OF STRICTURES IN WOMEN.

The cure of ſtrictures in the urethra of women is ſimilar to that in men; but it is rather more ſimple from the ſimplicity of the parts. There is, however, an inconvenience attending the paſſing the bougie in women, that does not occur in men, which is, that in moſt caſes it muſt be paſſed for them, it being hardly poſſible for a woman to introduce a bougie herſelf. The confinement of the bougie is alſo more difficult; for although it can eaſily be prevented from going into the bladder by bending the outer end down upon the mouth of the vagina; yet it is very difficult to prevent it from ſlipping out. It will be neceſſary to have a bandage of the T kind paſſing down between the labia over the bend of the bougie.

It appears to me that the cauſtic would anſwer extremely well in ſuch caſes; and therefore I ſhould prefer it to the bougie, both for convenience and efficacy.

II. OF THE GLEET IN CONSEQUENCE OF A STRICTURE.

I have already obſerved, that it happens generally, if not always, that there is a gleet when there is a ſtricture in the urethra. This I ſuppoſe to ariſe from the irritation produced in the urethra beyond the ſtricture, by the urine in its paſſage diſtending this part too much, which diſtention is increaſed by the increaſed ſtrength of the bladder. This ſymptom often leads us to the knowledge of a ſtricture, or at leaſt gives a ſuſpicion of ſuch a diſeaſe; and when a ſtricture is known to be the cauſe, no attempts ſhould be made to cure the gleet, for it is generally cured when the ſtricture is removed; but if it ſtill remains, it may be cured in the manner recommended in the common gleet, as probably ariſing from a cauſe different from ſtricture.

CHAPTER IV.

OF STRICTURE ATTENDED WITH SPASMODIC AFFECTION.

THERE are very few ſtrictures that are not more or leſs attended with ſpaſms; but ſome much more than others, the ſpaſm being in ſome caſes more the diſeaſe than the ſtricture itſelf. But real ſtrictures are attended with occaſional contractions, which make the paſſing of the urine much more difficult at one time than another. In all the caſes, that I have ſeen of this kind, when not attended with ſpaſms the diſeaſe is not formidable; but when the parts are in a ſpaſmodic ſtate, the ſymptoms are as violent as in the ſimple ſtricture.

As this is a mixed caſe, it has all the characters both of the permanent and ſpaſmodic ſtricture; for the urethra in ſuch circumſtances is in a ſtate ſimilar to what it is in the true ſpaſmodic kind, being very irritable, giving great pain in the paſſing of the bougie, and often rejecting it altogether, as will be taken notice of when we ſhall treat of that diſeaſe.

Upon conſidering this ſubject we ſhould at firſt hardly be diſpoſed to believe that the ſpaſm in the urethra is in the ſtrictured part, which can ſcarcely be ſuppoſed capable of contraction; and it might therefore naturally be referred to the ſound part of the urethra, as being brought on by the waters not flowing freely. If this is a juſt mode of accounting for it, we muſt ſuppoſe that the contraction is behind the ſtricture, that being the only part dilated by the water; and ſuch urethras being very irritable, that part may contract ſo as to ſtop the flowing of the water altogether. But ſome circumſtances that occur in practice, give reaſon to believe that ſuch ſtrictures have the power of contraction; for we find the bougie graſped by the ſtricture when allowed to remain ſome time; and the circumſtance of the ſtrictured parts refuſing the bougie, at times, is alſo a proof of the ſame.

There

There is ſometimes this ſingular circumſtance attending theſe caſes, that when there ariſes a gonorrhœa, or any other diſcharge of matter from the urethra, or an increaſe of an old gleet, the paſſage becomes free, and allows the urine to paſs as uſual; but ſuch relief is uncertain and only temporary; for whenever the diſcharge ceaſes the ſpaſmodic affection returns. I think, it is probable that it is only the ſpaſm that is affected by the diſcharge, and not the real ſtricture. Two remarkable caſes of this kind fell under my obſervation, which I ſhall now relate.

A gentleman had for a long time a complaint in the urethra, attended with a ſtricture, which was ſuppoſed to be originally from a venereal complaint. It was often attended with a diſcharge, which always produced a ſlight fever on its coming on; but while the diſcharge laſted, the difficulty of making water was relieved, and that in proportion to the greatneſs of the diſcharge; and whenever he got a freſh gonorrhœa the ſame thing happened.

Another gentleman had a difficulty in making water, ſuppoſed to ariſe from a ſtricture. It was generally attended with ſuch a running as is common to ſtrictures; but when that diſcharge was much increaſed, then the ſtricture was leſs in proportion. During this complaint he contracted two different infections, both of which relieved him of the ſtricture for the time.

As this is a mixed diſeaſe, it may be thought proper to treat it with a bougie for the real ſtricture, and for the other to uſe the method to be recommended hereafter, for the cure of ſpaſm.

It ſometimes happens in theſe mixed kinds, that a bougie does not immediately paſs, but is rejected by the ſpaſm; but by letting it lie in the urethra almoſt cloſe to the ſtricture for ten, fifteen, or twenty minutes, you will often make it paſs. This is as it were ſtealing upon it, and the water will often flow although the bougie is not attempted to be paſſed on. It is often relieved by gently irritating injections.

CHAPTER

CHAPTER V.

OF SOME CIRCUMSTANCES ATTENDING THE USE OF BOUGIES—THEIR FIGURE AND COMPOSITION.

IN caſes of ſtrictures, where a bougie is uſed as a wedge, not as a ſtimulant, and where a ſtricture is ſo far overcome as to let a bougie paſs on, the queſtion is, whether it may be better to paſs the bougie through the whole length of the urethra, ſo that the end of it ſhall be in the bladder, or only to paſs it through the ſtricture a little way, ſo that its end ſhall remain in the urethra. Nothing but experience can determine this queſtion; and, perhaps, in ſuch caſes we ſeldom make a fair trial, generally puſhing the bougie on to the bladder; though if we obſerve the conſequences of bougies not paſſing in thoſe caſes, where they either cannot paſs far beyond the ſtricture, or not at all, we find no inconvenience ariſing from this circumſtance, except when they are applied with too much force, ſo as to make a new paſſage. The common idea is, that it will be more hurtful to allow the end of the bougie to lie in the urethra than in the bladder; but this ſeems to be more founded in theory than practice.

Some people have ſuch a quantity of calculous matter in their urine, or ſo great a diſpoſition in their urine to depoſit its calculous matter, that it only requires the preſence of an extraneous body in the bladder to become an immediate cauſe of ſtone; for I have obſerved in ſome, that the end of a bougie cannot remain in the bladder a few hours without being covered with a cruſt of calculous matter. Such people I have generally adviſed to uſe as much exerciſe as all other circumſtances will allow.

Bougies, when firſt introduced, often produce ſickneſs, and ſometimes even fainting. I have ſeen a patient become ſick, the colour leave his face, a cold

ſweat come on, and at laſt a deliquium; but all theſe effects ſoon go off, and ſeldom return upon a ſecond or third trial. They at firſt produce an irritation on the urethra, which gives pain in the time of making water, but goes off on repetition. They produce a ſecretion of pus in thoſe caſes, where there was none, and generally increaſe the diſcharge where there is one previous to the application of them; but this effect gradually ceaſes.

It frequently happens, that ſwellings in the lymphatic glands of the groin ariſe from the uſe of bougies; but I never ſaw them advance to ſuppuration. As in moſt of ſuch caſes there is a diſcharge of matter previous to the bougie being paſſed, they can hardly be owing to the abſorption of matter, but muſt ariſe from ſympathy.

When treating of the ſtricture, I obſerved that it was often the cauſe of a ſwelling in one or both teſticles; and further, that the paſſing of a bougie often removed that complaint. I may now obſerve, that a very common conſequence of the paſſing a bougie is a ſwelling of the teſticle. This alſo ariſes from ſympathy, and like the ſwelling of the glands, is a common effect of all irritations of the urethra.

It may not be improper here to add ſome obſervations on the figure and compoſition of bougies. They ought to be about two inches longer than the diſtance between the glans and the ſtricture, or more if they can paſs freely, ſo as always to allow an inch to bend upon the glans, and another to paſs beyond the ſtricture. The thickneſs ſhould be according to the ſize of the ſtricture; at firſt, ſuch as will paſs with a ſmall degree of tightneſs, and this ſhould be gradually increaſed as the contracted part enlarges. But when the urethra has become of the natural ſize, the bougie need not be further increaſed, but its uſe ſtill continued, as has been obſerved.

With regard to the ſhape, they ſhould not taper from end to end when very ſmall, but ſhould be nearly of an equal thickneſs till within an inch of their ſmalleſt end, after which they ſhould taper to a point, forming a round wedge fitted to paſs into the ſtricture; and this form gives them greater ſtrength than when made to taper from one end to the other.

The conſiſtence ought to vary according to the nature of the caſe, and ſize of the bougie. If the ſtricture be near the glans, a ſtiff bougie may be uſed, and the whole may be made to taper gradually, becauſe a ſhort bougie

bougie will always have ſufficient ſtrength for any preſſure that is neceſſary; but if the ſtricture be more deeply ſeated, as about the bulb, where the paſſage begins to take a curve, the bougie muſt be a little thicker in its body to ſupport the neceſſary preſſure. If the ſtricture be any where in the bend of the urethra, or near the bladder, the bougie ſhould be very flexible, (although this is contrary to our general poſition) becauſe in this caſe it muſt bend in order to adapt itſelf to the curve of the paſſage, which it ought to do with eaſe; for when it bends with difficulty it does not make its preſſure upon the ſtricture, but upon the back part of the urethra, and therefore does not enter ſo eaſily; which circumſtance makes it more difficult to enter a ſtricture near the bladder, than near the glans. In the compoſition of the bougie the conſiſtence is the moſt material thing to be conſidered; the medical properties, as far as known, being of little conſequence. The materials of which they are commonly made, are wax, oil, and litharge. The litharge gives them ſmoothneſs, and takes off the adheſive quality which they would have if made of wax and oil only. A compoſition which anſwers well, is three pints of oil of olives, one pound of bees wax, and a pound and an half of red lead, boiled together upon a ſlow fire for ſix hours.

I. OF A NEW PASSAGE FORMED BY BOUGIES.

The greateſt evil ariſing from the improper uſe of the bougie, and the moſt dangerous is, where it makes a new paſſage.* I mentioned before that this generally aroſe from an attempt to produce ulceration by the application of the end of the bougie to the ſtricture in caſes where a bougie could not paſs; for in thoſe caſes, where a bougie paſſes, there can be no danger of ſuch an effect.

This new paſſage is ſeldom carried ſo far as to produce either an increaſe of the preſent diſeaſe, or a new one, although ſometimes this happens; yet it prevents the cure of the original diſeaſe, for it renders both the applica-

* Vide plate II.

tion of the bougie and cauſtic to the ſtricture ſo uncertain, that a continuance of either is dangerous, as it may increaſe the miſchief, and at laſt produce very bad conſequences.

This new paſſage is generally along the ſide of the old one, when in that part of the urethra which is on this ſide of the bend, and it is made in the ſpongy ſubſtance of the urethra; but when it is made at the beginning of the bend, it paſſes on in a ſtraight line through the body of the urethra, about the beginning of the membranous part, and goes through the cellular ſubſtance of the perenæum towards the rectum. When the new paſſage is made between the glans and the bend of the urethra, it may take place on either ſide of the canal equally, in the ſpongy ſubſtance of the urethra, between the canal and the ſkin of the penis, or ſcrotum; and it may be between the canal and the body of the penis. The ſituation of it will make ſome difference in the operation neceſſary for the cure of this complaint.

When a new paſſage is made, I know of no other method of cure than to open the part externally; and the opening muſt be made in that part of the urethra which is moſt convenient for coming at the ſtricture; regard being had to the other external parts, ſuch as the ſcrotum. If the ſtricture be before the ſcrotum, the new paſſage will be there alſo, and therefore the operation muſt be made of courſe before that part; but if the ſtricture is oppoſite to the ſcrotum, the bottom of the new paſſage may alſo be oppoſite to this part; but if the new paſſage is of a conſiderable length, its bottom or termination may be in the beginning of the perinæum; and in either ſituation the operation muſt be begun behind the ſcrotum, or indeed may be made a little way into it. But if the ſtricture and new paſſage are in the perinæum, then the operation is to be performed there.

The method of performing this operation is as follows. Paſs a ſtaff, or any ſuch inſtrument, into the urethra as far as it will go, which will probably be to the bottom of the new paſſage; and that we may be certain is beyond the ſtricture. Feel for the end of the inſtrument externally, and cut upon it, making the wound about an inch long, if the diſeaſe be before the ſcrotum; and an inch and an half, or more, if in the perinæum. If the new paſſage be between the urethra and the body of the penis, then you will

will moſt probably get into the ſound urethra before you come to the inſtrument or new paſſage; if ſo, it is not neceſſary to go further in order to get into the bladder, as we may be certain that this part of the urethra is behind the ſtricture. Having proceeded ſo far, take a probe, or ſome ſuch inſtrument, and introduce it into the urethra by the wound, and paſs it towards the glans, which will be paſſing it forwards towards the ſtricture. If it meet with an obſtruction there, we may be certain it is the ſtricture, which is now to be got through, and which will afterwards be eaſily enlarged. To complete the operation, withdraw the probe, and introduce in the room of it a hollow cannula forwards to the ſtricture; then take another cannula and introduce it from the glans downwards till the two cannulas oppoſe each other, having the ſtricture between them; an aſſiſtant laying hold of the urethra on the outſide, between the finger and thumb, juſt where the two cannulas meet, to keep them in their places; then through the upper cannula introduce a piercer, which will go through the ſtricture, and paſs into the lower cannula; this done, withdraw the piercer, and introduce a bougie into the ſame cannula, in the ſame way, being careful that it paſſed into the lower cannula: then withdraw the lower cannula, and the end of the bougie will appear in the wound; lay hold of the bougie there, and withdraw the upper cannula over the bougie, leaving the bougie in the urethra; now the lower end of the bougie is to be directed into the urethra leading on to the bladder, and puſhed on to that viſcus. It may be further neceſſary to lay the whole of the new paſſage open, that it may all heal up; for it is poſſible that this new paſſage may often receive the bougie, to be applied in future, which would be troubleſome, and might prove an obſtruction to the cure.

If the new paſſage be between the ſkin and the canal of the urethra, after cutting down to the inſtrument, you muſt go further on in ſearch of the natural canal, and, when you have found it, introduce a probe into it towards the glans, to find the ſtricture; and when this is done, go on with the operation as abovedeſcribed.

The bougie muſt be left in the paſſage, and as it may be found difficult afterwards to introduce another readily into the bladder, the longer the firſt is allowed to remain, ſo much the more readily will the ſecond paſs. I

am not yet certain but that it would be better to puſh on the hollow cannula at firſt, and keep it there for ſome days, at leaſt till the inflammation is over, and the parts have adapted themſelves to that body, which will make a bougie paſs more eaſily afterwards. The bougies muſt be gradually increaſed in ſize, and continued till the wound is healed up.

The firſt caſe of a new paſſage, formed by a bougie, which I ever ſaw, was at the hoſpital of the third regiment of guards, about the year 1765. A young ſoldier had a ſtricture, for the cure of which he had bougies regularly paſſed for near half a year without any relief. The bougie had gone further than at firſt by two inches, and therefore ſeemed to have gained ground on the ſtricture. This ſeemed to juſtify the continuance of the practice; but it being ſuſpected that there was ſomething more than was then underſtood, I was conſulted, and without foreſeeing what was really the caſe, I propoſed that an opening ſhould be made into the urethra where the obſtruction was, and carried further back if neceſſary, in ſearch of the ſound urethra. This was accordingly done in the following manner: the grooved ſtaff was firſt paſſed as far down as it could go, which was to the bottom of the new paſſage; the ſcrotum was pulled up upon the penis, when the end of the ſtaff was prominent towards the ſkin a little way above the perinæum, and there an inciſion was made on the end of the ſtaff about half an inch long; this diſengaged the end of the ſtaff, which was puſhed out at the wound; then ſearch was made for the other orifice which led to the bladder, on a ſuppoſition that that orifice was the ſtricture; but none being to be found, we tried to trace it by blowing with a blowpipe into the bottom and lower part of the wound; but no orifice could be obſerved. We then began to ſuſpect, that we were not in the urethra. To determine if we had been in the urethra, I began to diſſect with care the parts at the bottom of the wound, and laid bare the muſculi acceleratores. I then made an inciſion into the body of the urethra, and came to the true canal, which was eaſily diſcovered. When this was done we paſſed a probe on to the bladder, then withdrew, turned, and paſſed it from this wound towards the glans penis, but found that it went not much more than two inches that way, and then ſtopped. This ſtruck us with a new idea of the caſe; for we were now ſure that the end of the ſtaff had not been in the urethra, but

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in a new paſſage made in the ſpongy part of the urethra, for two inches beyond the ſtricture. We now paſſed a ſtaff from the glans down the urethra, and another up from the laſt wound, to ſee at what diſtance the ends of the two inſtruments were, which would give us the length of the ſtricture. We found, by taking hold of the urethra between the finger and thumb on the outſide, that the two ends were cloſe together. What was to be done next was our conſideration; it immediately ſtruck us that we might force our way through the ſtricture with ſafety. The gentleman who aſſiſted me in the operation paſſed a blowpipe one-fifth of an inch in diameter, (being not ſufficiently furniſhed with inſtruments) from the wound forwards to the ſtricture; and then I took a ſilver cannula, open at both ends, which had an iron piercer longer than itſelf, and paſſed it down to the ſtricture from the glans; and now the end of the cannula oppoſed the end of the blowpipe, and they were almoſt cloſe upon one another. They were kept in this poſition, with the finger and thumb applied on the outſide of the penis, like ſplints on a broken bone. I then introduced the piercer and puſhed it on, which went through the ſtricture into the hollow of the blowpipe. Great care was taken not to puſh too forcibly, leſt the two ends of the hollow tubes ſhould ſlip by one another, which they would do if not held firmly, as actually happened twice in this caſe; but we ſucceeded the third time. I then puſhed on the cannula through the ſtricture, and with it puſhed out the blowpipe. The next object was to paſs a hollow bougie along the urethra to the bladder, to do which the ſmall end of it was introduced into the cannula, which being puſhed on forced out the cannula at the wound; we then paſſed a director into the other orifice of the urethra, leading on to the bladder, and put the end of the bougie into the groove of the director, and puſhed it along the groove to the bladder; and before we withdrew the director we turned it round with its back to the bougie, that the end of the bougie might not ſtop againſt the end of the groove, and ſo be pulled out again. After all this was done, one ſtitch was made in the urethra, but the external wound in the ſkin was left for the paſſage of the urine, that it might not inſinuate itſelf into the cellular membrane. We dreſſed the wound ſuperficially, and applied the T bandage, which was ſlit to go on each ſide of the ſcrotum, and juſt where it came to the ſcro-

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tum we tied the two ends together, which ſupported the ſcrotum and kept it forwards on the penis; and the two ends that came from this knot on each ſide of the ſcrotum were tied to the circular part that came round the body. The patient had ſome ſlight fever for a day or two, and the urine came partly through the bougie and partly by the ſide of it through the wound. A ſwelling of one teſticle came on, likewiſe a ſwelling of the glands of the groin, pain in the belly, ſickneſs, and at times vomiting, all which ſymptoms were owing to ſympathy, and entirely went off in five or ſix days. The water, in nearly the ſame time, came entirely by the natural paſſage. The bougie was changed from from time to time till the cure was completed.

CHAPTER

CHAPTER VI.

OF DISEASES IN CONSEQUENCE OF A PERMANENT STRICTURE IN THE URETHRA.

STRICTURES in the urethra produce almoſt conſtantly diſeaſes in the parts beyond them; that is, in the part of the urethra between the ſtricture and the bladder. They bring on in moſt caſes a gleet, as has been deſcribed, and often a conſiderable diſtention of the part of the canal beyond the ſtricture; alſo inflammation and ulceration, and in conſequence of them diſeaſes in the ſurrounding parts, as in Cowper's glands, the proſtate, and the ſurrounding cellular membrane, forming abſceſſes there, and at laſt ulceration, for the purpoſe of making a new paſſage for the urine. The bladder is alſo often affected, and ſometimes the ureters, with the pelvis of the kidneys, and in ſome caſes the kidneys themſelves. All theſe are effects of every permanent obſtruction to the urine; ſome of them are methods which Nature takes to relieve the parts from the immediate complaints; ſuch are the increaſe of the urethra beyond the ſtricture, and the enlargement of the ureters and pelvis of the kidneys, which are only to be conſidered as the parts accommodating themſelves to the immediate conſequence of the obſtruction, which is the accumulation of urine. Of theſe complaints I ſhall take notice in their order.

I. OF THE ENLARGEMENT OF THE URETHRA.

THE urethra beyond the ſtricture I have obſerved is enlarged, becauſe it is more paſſive than the bladder, and yields to the preſſure of the urine. It is naturally paſſive while the bladder is acting, by which means it becomes diſtended in proportion to the force with which the bladder acts, and the reſiſtance

reſiſtance of the ſtricture. Its internal ſurface often becomes more irregular and faſciculated. It is alſo more irritable, the diſtention becoming often the immediate cauſe of ſpaſms in that part; and theſe ſpaſms are moſt probably excited with a view to counteract the effort produced by the action of the bladder.

II. OF THE FORMATION OF A NEW PASSAGE FOR THE URINE.

When the methods recommended above for the removal of ſtricture have either not been attempted, or have not ſucceeded, Nature endeavours to relieve herſelf by making a new paſſage for the urine, which, although it often prevents immediate death, yet, if not remedied, is productive of much inconvenience and miſery to the patient through life. The mode, by which Nature endeavours to procure relief, is by ulceration on the inſide of that part of the urethra, which is enlarged and within the ſtricture. The ulceration commonly begins near or cloſe to the ſtricture, although the ſtricture may be at a conſiderable diſtance from the bladder; therefore we muſt ſuppoſe, that there is ſome circumſtance beſides the diſtention of the urethra by the urine, which determines the ulceration to a particular part. This circumſtance moſt probably ariſes immediately out of its vicinity to the ſtricture, and may be called contiguous ſympathy. The ſtricture is often included in the ulceration, by which it is removed, the diſeaſe cured, and a ſtop ſometimes put to the further ulceration: but unluckily this is not always the caſe. We may obſerve, that this ulceration is always on the ſide next to the external ſurface, as is common in abſceſſes.

As this ulceration does not ariſe from preceding inflammation; and as it cannot be ſaid that the urine acts exactly as an extraneous body, becauſe it is in its natural paſſage, we find that there is but very little inflammation of the adheſive kind attending theſe ulcerations. We muſt allow, however, that the urine produces the ulcerative diſpoſition here, like matter on the inſide of an abſceſs, although not ſo readily.

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Whenever, therefore, the internal membrane and ſubſtance of the urethra are removed by abſorption, the water readily gets into the looſe cellular membrane of the ſcrotum and penis, and diffuſes itſelf all over thoſe parts, not having been previouſly united by the adheſive inflammation: and as the urine has conſiderable irritating powers, when applied to the common cellular membrane, the parts inflame and ſwell. The preſence of the urine prevents the adheſive inflammation from taking place; it becomes the cauſe of ſuppuration wherever it is diffuſed; and the irritation is often ſo great, more eſpecially in caſes where the urine has been allowed to become very ſtale, that it produces mortification firſt in all the cellular membrane, and afterwards in ſeveral parts of the ſkin; all of which, if the patient live, ſlough away, making a free communication between the urethra and external ſurface, and produce fiſtulæ in perinæo.

We may obſerve however, that the want of the adheſive inflammation in theſe ulcerations appears to be peculiar to that part of the urethra which lies between the membranous part and the glans penis; for we find from experience, that when this proceſs takes place further back, as in the proſtate gland, a circumſcribed abſceſs is generally formed. This may ariſe from the difference in texture of the cellular membrane of the parts, the firſt admitting of the diffuſion of the urine very readily from the looſeneſs of its texture, the other producing adheſions before the urine is allowed to paſs; which adheſions afterwards exclude it.

It ſometimes happens, that the urine gets into the ſpongy ſubſtance of the body of the urethra, and is immediately diffuſed through the whole, even to the glans penis, producing mortification of all thoſe parts, as I have more than once ſeen.

When the urine has made its way into the cellular membrane, although the ulceration of the urethra is in the perinæum, yet it generally paſſes eaſily forwards into the ſcrotum, that part being compoſed of the looſeſt cellular membrane in the body. When the ſeat of the ulceration is in the membranous or bulbous part of the urethra, and the pus and urine have found their way to the ſcrotum, there is always a hardneſs extended along the perinæum to the ſwelled ſcrotum, which is in the tract of the pus.

Ulceration cannot be prevented but by deſtroying the ſtricture; but when the water is in the cellular membrane, which is the ſtate we have been deſcribing, the removal of the ſtricture will in general be too late to prevent all the miſchief, although it will be neceſſary for the complete cure: therefore an attempt ſhould be made to paſs a bougie, for perhaps the ſtricture may be included in the ulceration, (as was mentioned before) and thereby allow a bougie to paſs. When this is the caſe, bougies muſt be almoſt conſtantly uſed to procure as free a paſſage forwards in the right way as poſſible. Where the bougie will not paſs, I am afraid that the cauſtic, as deſcribed in the caſe of a ſtricture, would in many caſes be too ſlow in its operation, and in others it cannot be tried, as the ſituation of the ſtricture is often ſuch as will not admit of it.

While we are attempting the cure of the ſtricture, every method is to be uſed that removes inflammation, particularly bleeding. Great relief may be obtained by expoſing the parts to the ſteam of hot water; but this is merely a palliative cure. The warm bath, opium, and the turpentines, given by the mouth, and alſo by the anus, will aſſiſt in taking off any ſpaſmodic affection; but all theſe are too often inſufficient, and therefore immediate relief muſt be attempted, both to unload the bladder, and prevent any further effuſion of urine into the cellular membrane. This muſt be done by an operation, which conſiſts in making an opening into the urethra ſomewhere beyond the ſtricture, and the nearer to the ſtricture the better.

The method of performing the operation is firſt to paſs a director or ſome ſuch inſtrument into the urethra, as far as the ſtricture; then to make the end of the inſtrument as prominent externally as poſſible ſo as to be felt, which in ſuch a caſe is often difficult, and ſometimes impoſſible. If it can be felt it muſt be cut upon, and the inciſion carried on a little further towards the bladder, or anus, ſo as to open the urethra beyond the ſtricture; this will be ſufficient to allow the urine to eſcape, and to deſtroy the ſtricture. If the inſtrument cannot be felt at firſt by the finger, we muſt cut down towards it, which will bring it within the feel of the finger, and afterwards proceed as above-directed.

If the ſtricture in the urethra be oppoſite to the ſcrotum, it being impoſſible to make the opening there, it muſt be made in the perinæum, in which caſe

caſe there can be no direction given by an inſtrument, as one cannot be made to paſs ſo far; therefore we muſt be guided by our knowledge of the parts. The opening being made, the ſtricture is to be ſearched for as deſcribed in the operation, in caſes where a falſe paſſage has been made, by paſſing a probe from the wound forwards, towards the glans. The other ſteps of the operation will be nearly the ſame. In whichſoever way the operation is performed, a bougie muſt be introduced, and the wound healed up over it. In my opinion a catheter anſwers this purpoſe better.

Great attention ſhould be ſtill paid to the inflammation which ariſes in conſequence of the urine having been diffuſed in the cellular membrane, as before deſcribed. Where the inflammation is attended with ſuppuration and mortification, it will be neceſſary as well in this caſe, as in that where no operation is required, to ſcarify the parts freely, to give an opening both to the urine and pus. Where mortification has taken place in the ſkin, the ſcarifications ſhould be made in the mortified parts, if it can be done with equal advantage, and this with a view to prevent irritation.

In total ſuppreſſions of urine, from whatever cauſe, the urine ſhould never be allowed to accumulate, and ſhould either be drawn off frequently, or a catheter ſhould be kept continually in the urethra and bladder; becauſe we ſhould on no account allow the bladder to be diſtended beyond an eaſy ſtate; for if it be, it always brings on debilitating and alarming ſymptoms, as paralyſis of that viſcus. In many ſuppreſſions of urine, as in caſes of ſtrictures, it is impoſſible to draw off the water. In ſome caſes where the urethra is ulcerated, and the urine gets into the cellular membrane of the penis, and prepuce, ſo as to diſtend them much, producing a phymoſis, it becomes impoſſible to find the orifice of the urethra. The following caſe illuſtrates moſt of the preceding doctrines.

A gentleman of a ſcrofulous habit had often had venereal gonorrhœas, which, being ſevere, commonly produced ſwellings, or knobs along the urethra; upon which account he was adviſed to avoid this diſeaſe as much as poſſible. When in the country, in November 1782, he was attacked with a ſlight cold or fever, and a ſmall diſcharge from the urethra, which he could not determine to be venereal. In this ſtate he ſat out for London, but was ſeized on the road with a ſuppreſſion of urine, which detained

him two days at an inn. On his arrival in London, I found him feveriſh. He ſpoke to me only of a diſcharge from the urethra; but as I did not conceive that the fever could ariſe from that cauſe, I deſired him to be eaſy on that account. He was taken with a ſhivering fit, which made us ſuſpect it might terminate in an intermittent, and we waited for the reſult. He ſtill complained of the diſcharge, and mentioned a ſoreneſs in the perinæum, both when he made water and when he preſſed it externally. On examining the perinæum, I found a fulneſs there, from which I ſuſpected a ſtricture, and inquired particularly how he made water in common; he declared very well, which led me from the true cauſe. This ſwelling was regarded as the effect of an inflammation, either in conſequence of the fever, the diſpoſition of the part, or both, increaſed by ſitting in a poſtchaiſe for ſeveral days. The part was fomented and poulticed; and leeches were applied ſeveral times. He had another ſhivering fit three days after the firſt, which, if his diſeaſe had been an intermittent, would have conſtituted a quartan; but he had another ſome hours after, which made us give up our ſuſpicions of an intermittent. We now began to ſuſpect that matter was forming in this part, although I could not feel any thing like a fluctuation; nor was the pain of the throbbing kind, or ſo acute as we commonly find it in the ſuppurative inflammation. What in ſome degree ſurpriſed me was, that the ſwelling came forwards along the body of the penis towards the os pubis, while it ſeemed to be diminiſhing in the perinæum. He now began to find a difficulty in making water, with a frequent deſire, which increaſed till there was a total ſuppreſſion. I preſſed on the lower part of the belly to determine whether or not the urine was ſecreted and accumulated in the bladder; but I could not find any fulneſs; nor did he then feel pain on ſuch preſſure; however, abour twenty-four hours after, he began to complain of a great deſire to make water, and a pain in the lower part of his belly; and the hand being placed there, a fulneſs of the bladder was readily felt. It was now clear, that the water ought to be drawn off; but as I ſtill ſuſpected miſchief in the urethra as a cauſe in his complaint, I took the neceſſary precautions. I provided myſelf with catheters and bougies of different ſizes, and to be as much upon my guard as poſſible, I introduced a bougie of a ſmall ſize firſt, and found a full ſtop about the bulbous part

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of the urethra: I then took a ſmaller, which paſſed but with difficulty. I afterwards paſſed a ſmall catheter on to the ſtricture, where it ſtopped; but as it was abſolutely neceſſary that the water ſhould be drawn off, I uſed more force than I otherways would have done: it went on, but with difficulty, and I was not certain whether it was in the natural paſſage, or was making a new one. When the bougie had gone ſo far as certainly (if in the right paſſage) to have entered the bladder, I found that no water came, I therefore preſſed the lower part of the belly, and the water immediately came out through the catheter; whence it appeared that the bladder had loſt its power of contraction. The water was drawn off three times every day, that is, every eight hours, to give as much eaſe to the bladder as poſſible; but ſtill it was neceſſary to preſs the belly, to aſſiſt the diſcharge of the urine; and it was upwards of a fortnight before the bladder began to recover its power of contracting. The ſwelling in the perinæum ſtill continued, advancing along the body of the penis, and ſpreading a little on the pubes, it ſeemed to extend along the projecting part of the penis, and at laſt filled the whole cellular membrane of the prepuce, but did not in the leaſt affect the ſcrotum. This ſwelling appeared to be owing to the urine having found its way into the cellular membrane of the perinæum, and from thence proceeding along the ſide of the penis. When the prepuce became much loaded with water, a very conſiderable phymoſis took place, which made the introduction of the catheter into the orifice of the urethra very uncertain; ſo much did the ſwelled prepuce project over the glans. I was obliged to ſqueeze the water back into the body of the penis, and introduce a finger, and feel for the glans, and on this finger introduce the catheter; and in a few minutes I generally found the orifice.

The nature of the caſe was now plain; for ulceration had taken place beyond the ſtricture, and the ſwelling had ariſen from the urine having inſinuated itſelf into the cellular membrane of the perinæum; and as the urine eſcaped from the urethra, it was puſhed forwards where the cellular membrane was looſeſt, till it got to the very end of the prepuce as beforementioned.

By this time he was become extremely low and irritable; his pulſe quick and ſmall; his tongue brown, dry, and contracted; his appetite gone, with great

great drought, bad ſleep, and the firſt ſtages of a delirium coming on. This diſcovery of the true ſtate of the caſe gave a change to the mode of treatment. Inſtead of evacuations to leſſen inflammation, the bark, and cordials were given, with as much food as his ſtomach would bear. Their effects on the conſtitution were almoſt immediate; and he began to recover, altho' but ſlowly. I made two punctures in the phymoſis at the extremity, with a view both to take off the tenſion and to evacuate the urine from the cellular membrane, between the penis and the ſkin.

Bliſters began to form on the ſkin of the penis; and at laſt mortification took place in ſeveral parts, eſpecially on the prepuce, which I divided at the mortified parts, and thereby the glans became expoſed, ſo that the catheter could now be introduced eaſily.

Upon ſqueezing the ſwelling from the perinæum forwards along the penis, I could force out at the mortified parts, air, water, and ſome matter. The cellular membrane under the ſkin was almoſt wholly mortified. When bounds were ſet to the mortification, the ſloughing cellular membrane began to ſeparate; and a good deal was cut away to keep the parts clean, and to allow of a freer vent for the matter. Now that ſeparation was taking place, I was clear that no more water from the bladder could inſinuate itſelf any further into the ſurrounding cellular membrane; therefore it was not neceſſary to paſs the catheter any more; and the patient was allowed to make water whenever he had a call; which when he did, the water came both ways, through the urethra, and through the cellular membrane, at the openings where the ſkin had ſloughed off. As the ſloughs ſeparated, they came forwards from behind, at the ſide of the ſcrotum, ſo that I could draw them out; and when moſt of the mortified cellular membrane was removed, I ſaw a part, about the ſize of a ſixpence, of the tendinous covering of the corpus cavernoſum dead, which was alſo allowed to ſlough off. Moſt of the water now came through the ſore. The parts became more painful; he was more reſtleſs, and one morning he had a ſhivering fit. I endeavoured to paſs a bougie down the ſore, between the ſkin and penis, but could not; in the evening of the ſame day a guſh of matter and blood came out of the ſore, which immediately relieved him; and he began to mend again, and continued to do ſo, both in the parts and his general health,

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the water coming both ways, but often varying in quantity between the two paſſages; more and more, however, came the right way, till at laſt the new paſſage cloſed up entirely.

While the external parts were healing, I paſſed a bougie occaſionally, to keep the paſſage clear and open. To find out the ſituation of the internal opening, I ordered the patient to preſs on different parts of the perinæum while he was making water; by which means he found that by preſſing upon a particular ſpot he could ſtop the water from flowing through the new paſſage. He was directed, however, not to preſs too hard, for fear of forcing together the ſides of the natural paſſage. Upon erections, the penis was bent to the ſide that had ſuffered; but in time the parts gradually recovered their natural form.

III. OF INFLAMMATION IN THE PARTS SURROUNDING THE URETHRA.

Inflammation, ariſing from diſtention and irritation of the urethra, often extends conſiderably further than the ſurface of that canal; for the ſurrounding parts become the ſeat of inflammation, the ſituation of which will commonly be according to the ſituation of the ſtricture, producing the diſtention. Thus we find the inflammation affecting the proſtate gland, the membranous part of the urethra, the bulb, and probably Cowper's glands, with other parts of the urethra between the bulb and the glans. But inflammation in the ſurrounding parts of the urethra is not always a conſequence of diſtention or ſtricture; it ariſes often from other irritations in this canal, ſuch as violent gonorrhœas, and very irritating injections. When inflammation attacks theſe parts, it is of the true adheſive kind; and therefore when ſuppuration takes place an abſceſs muſt be formed, unleſs the inflammation be reſolved. The matter, according to a general principle in abſceſſes, points externally; when the ſeat of the abſceſs is either in the proſtate gland, membranous part, or in the bulb, the matter will point in the perinæum; or the abſceſs may be formed forwards in the ſcrotum, or before it, according to the ſituation of the ſtricture.

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The ſeat of theſe abſceſſes is generally ſo near the inner ſurface of the urethra, that the partition between them often gives way, and they open internally, as frequently happens in an abſceſs by the ſide of the rectum, ſo that the matter is at once diſcharged by the urethra, or carried back into the bladder to be diſcharged with the urine. When the internal opening only takes place, I believe it is owing to the ulceration on the inner ſurface of the urethra, as has been already deſcribed; and in theſe caſes alſo the ſtricture is ſometimes involved in the abſceſs and ulceration, by which means the water will find a free paſſage forwards; but the urine has alſo a free paſſage into the abſceſs, which we may ſuppoſe retards its healing, and often becomes the cauſe of its opening externally; but here from the adheſive inflammation having taken place, the urine cannot inſinuate itſelf into the ſurrounding cellular membrane, ſo as to produce the conſequences mentioned in treating of the way in which Nature endeavours to relieve herſelf. In ſuch caſes we find, that upon preſſing the abſceſs externally, the matter is ſqueezed into the urethra, and ſo out by the glans. It ſometimes happens, that a catheter can be introduced into the opening of ſuch an abſceſs, by which means it can be waſhed by injecting ſomething through the catheter, whereby probably it may be ſooner healed. It more frequently happens, that ſuch abſceſſes open both internally and externally, diſcharging themſelves both ways.

Theſe ulcerations and ſuppurations, of both kinds, are to be conſidered as efforts of Nature; or to ſpeak more phyſiologically, as a natural conſequence ariſing from ſuch irritation, by which as the urine cannot paſs by the old paſſage a new one is made to prevent further miſchief.

Both theſe diſeaſes when they open externally, if not properly treated, often lay the foundation for the complaint commonly called the fiſtula in perinæo; which is owing to the bottom of the abſceſs having a leſs diſpoſition to heal than the external parts. It may be further ſuppoſed, that the urine paſſing into the abſceſs by the inner orifice, and making its eſcape by the external, keeps up a conſtant irritation in the ſore, which in ſome meaſure may prevent an union of the ſides, and rather diſpoſe them to form themſelves into a hard callous ſubſtance, the inner ſurface of which loſes the diſpoſition to unſon, and aſſumes the nature of an outlet.

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But it is more than probable, that the cauſe which prevents theſe abſceſſes from healing, depends upon their firſt action often continuing in full force, that is, a diſeaſed ſtate of the internal parts, as will be further illuſtrated when we ſhall treat on the fiſtula in perinæo. They often heal up at the orifice in the ſkin, eſpecially if the water has a free paſſage forwards; but if the internal opening is not perfectly conſolidated, ſome water will inſinuate itſelf into the old ſore, become the cauſe of freſh inflammations and ſuppurations in the ſurrounding parts, which frequently open externally in different places, not following the old canal, although they ſometimes communicate with it and form branches, as it were, from the principal trunk. I have ſeen the ſcrotum, perinæum, and inſide of the thigh, full of openings which were the mouths of ſo many ſinuſes leading to the firſt formed abſceſs. When the abſceſs opens only externally, which is ſeldom the caſe, it is to be conſidered as a common abſceſs.

When theſe inflammations ariſe from ſtricture, the difficulty in making water is increaſed in the time of the inflammation, which is generally ſo great as to compreſs the ſides of the urethra together for ſome way; beſides the ſtricture itſelf will become tighter from being inflamed. Inflammation in theſe parts, even when it does not ariſe from a ſtricture, brings on a ſuppreſſion of urine; but in ſuch caſes a bougie or catheter can be paſſed; the latter of which, in caſes of obſtruction ariſing from contiguous ſwellings, as tumors, inflammations, and ſwelled proſtate gland, is the proper inſtrument, as the ſides of the urethra would be preſſed together immediately upon withdrawing the bougie, by which the urine would be as much as ever prevented from following.

IV. OF THE TREATMENT OF THE INFLAMMATION IN THE SURROUNDING PARTS.

The inflammation of theſe parts is to be treated like other inflammations. Reſolution is much to be wiſhed for; but it is almoſt impoſſible it ſhould take place where ſtricture is the cauſe. When the ſtricture is removed, either by ulceration or a bougie, we have only the inflammation to contend

with; but this ſeldom happens, for the inflammation is but too often accompanied with ſuppuration.

When ſuppuration takes place, the ſooner the abſceſs is opened externally the better, as that may in ſome caſes be the means, though ſeldom, of preventing its opening internally; yet it may prevent the inner opening from becoming ſo large as it otherways might be. The opening externally ſhould be large; and if the ſtricture is not involved in the ſuppuration, then it muſt be deſtroyed; becauſe there can be no cure while the water paſſes through the new opening. I have ſucceeded with the cauſtic even in ſtrictures of long ſtanding.

When the ſtricture will admit of the paſſage of a bougie through it, it is to be kept almoſt conſtantly in the urethra, and to be withdrawn only at the time of making water; this will allow the urine to paſs more freely through the urethra, without eſcaping through the ſore. The ſore muſt be healed from the bottom.

Hollow bougies are recommended in ſuch caſes, after the ſtricture is deſtroyed, to prevent the urine paſſing through the wound. This inſtrument admits of a conſtant dribbling of urine through it; but the bougie may be occaſionally ſtopped up, and the urine permitted to paſs when there is a deſire to make water. It becomes under certain circumſtances the worſt inſtrument poſſible; for if its canal is not of a ſize ſufficient to let the water paſs as freely as the contraction of the bladder requires, the water will paſs eaſily by the ſide of the bougie to the abſceſs, and not getting forwards beyond the ſtricture, flow out at the abſceſs: to avoid this effect as much as poſſible, the hollow bougies ſhould be as large as the ſtrictured part will allow, and its ſides ſhould be as thin as poſſible, that its paſſage may be the larger. The elaſtic gum has theſe two properties in a higher degree than the ſpiral wire covered with waxed cloth. But as I doubt very much that the paſſage of the urine may be an hinderance to the healing of the ſore, I am the leſs ſolicitous about ſuch practice; for we find, that, after lithotomy the parts heal very readily; and, even in this operation, the external parts which are not diſeaſed heal up very readily. I ſuſpect that the want of diſpoſition to heal ariſes from the ſtrictures not being ſufficiently ſubdued, or the deeper parts not being in a healthy ſtate.

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When theſe ſuppurations are left to themſelves, and no method tried to remove the ſtricture, and of courſe nothing introduced into the urethra, the ſtricture ſometimes cloſes entirely, ſo that no water can paſs forwards through the urethra; and therefore before any attempt can be made to heal the fiſtulous orifices, a paſſage muſt be made through the united parts. This cannot be done with a bougie; and if this union of the parts is before the bend of the urethra, which moſt commonly it is, nothing but the cauſtic can be applied with any proſpect of ſucceſs, as we ſhall mention more fully in treating of the fiſtula in perinæo.

V. OF THE EFFECTS OF INFLAMMATION IN THE SURROUNDING PARTS UPON THE CONSTITUTION.

The effects which theſe attempts to form a new paſſage for the urine have upon the conſtitution, are very conſiderable; much more ſo than what one would at firſt expect. Thoſe caſes appear to be moſt formidable, which begin by ulceration on the inner ſurface of the urethra, and where the water diffuſes itſelf into the cellular membrane of the ſcrotum and penis.

Thoſe where the inflammation is circumſcribed are more of the true abſceſs, and therefore do much leſs miſchief to the parts than when the urine is diffuſed in the cellular membrane. In theſe laſt, if not ſoon relieved, the patient ſinks, and a mortification comes on. If before the patient ſinks, a ſeparation of the ſlough takes place, this ſeparation performs the operation of opening, and the patient may recover. We ſhould not, I believe, wait for ſuch ſeparation of the mortified part, but make an opening early, upon the firſt knowledge of a diffuſion of water into the cellular membrane; and we ſhould be guided as to ſituation by introducing a ſtaff into the urethra on to the ſtricture. But in ſome caſes this cannot be done, for when the urine gets into the corpus ſpongioſum, it produces mortification of all theſe parts, and renders the whole ſo indiſtinct that often no urethra can be found.

The effects, that the circumſcribed inflammation has upon the conſtitution, is generally not ſo ſerious as the above, for mortification as ſeldom

takes place in this as in abſceſſes in general. When the abſceſs is from the bulb backwards, there is generally a ſmart ſympathetic fever, becauſe the abſceſs will be of conſiderable ſize before it gets to the ſkin of the perinæum, and is generally attended with great pain; but this pain goes off by the formation of the matter, eſpecially if opened early.

As there is a great diſpoſition to violent action, attended with great weakneſs in ſuch caſes, more eſpecially in thoſe of the firſt kind, it is adviſeable to give the bark early, and in conſiderable quantity; but I apprehend it is neceſſary to give along with it ſudorifics, as ſome of the preparations of antimony, there being generally a good deal of fever. The bark gives ſtrength, and alſo in ſome degree leſſens irritability; but it ſhould be aſſiſted by other medicines.

VI. OF FISTULÆ IN PERINÆO.

It often happens that the new paſſages for the urine do not heal on account of the ſtricture not being removed; and even when the ſtricture is removed, they frequently have no diſpoſition to heal. In both caſes they become fiſtulous, and produce freſh inflammations and ſuppurations, which do not always open into the old ſore, but make new openings externally. Theſe ſometimes ariſe from the firſt external openings not being ſufficiently large, ſo that they heal up long before the bottom, or long before the diſeaſed urethra; and even when the external opening has been made as large as poſſible, it will often heal ſooner than the bottom, and become fiſtulous at laſt.

It is very common for theſe diſeaſes to affect the conſtitution, ſo as to bring on complaints of an intermittent kind. I have ſeen ſeveral affected with regular agues, where the bark has produced no effect; but whenever the obſtruction has been got the better of, or the fiſtulous orifice opened and in a ſtate of healing, theſe complaints have entirely gone off.

To cure this diſeaſe, it is neceſſary firſt to make the natural paſſage as free as poſſible, that no obſtruction may ariſe from that quarter; and ſometimes this alone is ſufficient; for the urine, finding a free paſſage forwards, is not forced into the orifice, and the fiſtulæ heal up. The bougie may bring

bring on an inflammation on the urethra at this part, and produce adhesions there; but if this effect is not produced early, the bougie will rather do harm if applied too often, and too long at a time, as will be more fully explained. But the dilatation of the stricture is not always sufficient; it is often necessary to perform an operation on the fistulæ, when they alone become the obstacle to the cure, which I shall now describe.

VII. OF THE OPERATION FOR FISTULÆ IN PERINÆO.

When the before-mentioned treatment is not sufficient for the cure of the new passages, a method should be followed similar to that used in the cure of fistulæ in other parts, by laying them freely open to the bottom, and even making the orifice in the urethra a fresh sore if possible. This will be difficult in many situations of the internal orifice; and the mode of opening, and other circumstances attending the operation, will vary according to the situation.

That as little of the sound part of the inner surface of the urethra may be opened as possible, and that the diseased part may be fully exposed, it is necessary to be well directed to the inner orifice, for which we have commonly two guides, one is a staff introduced into the urethra as far as is thought necessary, or as far as it will go, (which will only be to the stricture, where the stricture still exists, or it may pass on to the bladder in cases where the stricture has been destroyed); the other guide is a probe passed into the fistulous orifice. The probe should be first bent, that it may more readily follow the turns of the fistula, and introduced as far as possible; if it could be made to meet the staff, so much the better, as then the operator could cut just what is necessary. If the fistula is tolerably straight, so as to admit the passing a director, it is the best instrument for operating upon. If neither the probe nor the director can be made to pass on to the staff, we must open as far as they go, and begin searching anew after the remainder of the passage with the same instrument, and pursue it till the whole fistulous canal is laid open. If there are any sinuses, they are to be laid open if possible; but it frequently happens, that they cannot be followed

followed by the knife, ſome running along the penis, where the ſcrotum is attached, others paſſing on towards the pubes, round the penis, while others are about the membraneous part of the urethra. In ſuch caſes ſome degree of violence may be uſed, and I have ſeveral times introduced my finger into theſe ſinuſes, and have torn the parts ſo as to produce a conſiderable inflammation, by which means they often ſuppurate, granulate, and unite.

If the ſituation of the internal orifice is oppoſite to the ſcrotum, it will be difficult to get to it; but I imagine we may uſe great freedom with the external parts, whatever they are, for they are generally in a ſtate of calloſity. However this requires judgment.

In caſes where the diſeaſe is before the membraneous part and the ſtricture is not removed, a ſtaff cannot be made to paſs on to the inner orifice. In ſuch the fiſtulous opening muſt be followed by the introduction of a probe or director into it, and by dilatation upon the inſtrument till the urethra beyond the ſtricture is found; and then a probe muſt be paſſed on towards the glans, to meet the end of the ſtaff at the ſtricture; ſimilar to what is done in the operation where a falſe paſſage has been made by the miſmanagement of the bougie. The ſtricture muſt then be deſtroyed, and a bougie paſſed, as was recommended in that operation.

If either the ulceration, or the abſceſs, is formed in or near the proſtate gland, then probably the ſtricture is near that part. In that caſe a ſtaff muſt be paſſed as far as poſſible, and a probe or director introduced into the external orifice, and the operation is to be directed accordingly. The difference of the operation in this caſe from the former will be, that we ſhall moſt probably be obliged to cut into the urethra on both ſides of the ſtricture, therefore more of the canal muſt be expoſed.

As this operation is the opening of all the fiſtulous canals, and alſo the deſtruction of the ſtricture, if there has been one, an inſtrument can afterwards, in every caſe, be paſſed into the bladder. It will moſt probably always be proper to introduce an inſtrument into the bladder, and keep it there almoſt conſtantly, ſo as to preſerve the paſſage of the urethra in a regular form, while the openings made are healing; and probably the catheter will be by much the beſt inſtrument, becauſe it is not neceſſary to be withdrawn whenever the neceſſity to make water comes on, which a

bougie

bougie muſt; and its introduction again is often not practicable, for its end will be apt to get into the wounds.

In ſuch caſes as require a hollow cannula to be left in the bladder for the purpoſe of drawing off the water, whether a catheter or hollow bougie, it is abſolutely neceſſary it ſhould be fixed there, or elſe it will in common come out by the actions of the part. To effect this, it is neceſſary to fix that end of the inſtrument out of the penis to ſome part of the body that is the leaſt moveable: what will anſwer extremely well is the common belt-part of the bag-truſs, with only two thigh-ſtraps fixed behind and made to tie or buckle before; and two or three very ſmall rings or ſhort tapes fixed to thoſe ſtraps; where they paſs between the thigh and ſcrotum they ſhould not be at a great diſtance from one another where they are fixed behind to the belt, for otherways they are much altered in tightneſs by the motion of the thigh. If they have a flat ſpring in them ſo much the better.*

The common bag-truſs for the ſcrotum anſwers extremely well, firſt by fixing two or three rings on each ſide of it along the ſide of the ſcrotum, and with a piece of ſmall tape the ring of the cannula can be faſtened to any one of thoſe rings that is moſt convenient for its ſituation.

Whatever inſtrument is uſed for the purpoſe of keeping the paſſage clear and open while the ſores are healing, whether the ſores are in conſequence of this operation, or in conſequence of the cauſes of the fiſtulæ, which I have deſcribed, there is a limited time in many caſes for its continuance; for if continued beyond a certain period, it frequently acts contrary to what was intended: at firſt it often aſſiſts the cure, but towards the laſt it may obſtruct the healing of the ſores by acting at the bottom of the wound as an extraneous body. Therefore whenever the ſores become ſtationary, I would adviſe the withdrawing of the inſtrument, and the introducing it only occaſionally. The catheter will probably be ſtill the beſt inſtrument for this purpoſe, as it will paſs more readily, and draw off the water at the ſame time: however, I have often uſed a bougie, and by great care have paſſed it with ſucceſs; and probably it will be proper to uſe it every now and then,

* Mr. Vanbutchell's ſprings would anſwer very well.

even

even when all is healed, in order to determine whether or not the paſſage is free from diſeaſe.

The ſore and the wound are to be at firſt dreſſed down to the bottom as much as poſſible, which will prevent the reunion of the parts juſt divided, and make the granulations ſhoot from the bottom ſo as to conſolidate the whole by one bond of union.

When the urethra has ſuffered ſo much, that abſceſſes have formed beyond the ſcrotum, the patient ſhould ever after take great care to avoid a freſh gonorrhœa, for he ſeldom in that caſe eſcapes a return of the ſame complaints; and indeed, if he is not careful in many other reſpects, he is liable to returns of the ſame diſeaſe. If, notwithſtanding this precaution, he ſhould contract a gonorrhœa, every thing heating is to be carefully avoided, particularly irritating injections.

The following caſe ſhows that keeping extraneous bodies in the urethra prevents wounds made into that canal from healing.

A man, aged twenty-ſix, came into St. George's Hoſpital, March 2, 1783. He had laboured under a fiſtula in perinæo for near two years, ariſing from a ſtricture, attended with great pain and difficulty in making water. Four fiſtulous orifices were to be obſerved in the perinæum and ſcrotum. The ſmalleſt bougie could not be made to paſs into the bladder after repeated trials. The cauſtic was then applied but without ſucceſs.

The operation for the fiſtula in perinæo was performed, September 19. A catheter was firſt introduced as far as it would go, as a director, and all the ſinuſes were laid open to that catheter, which expoſed near an inch in length of that inſtrument; then the catheter was in part withdrawn to expoſe that part of the urethra which was laid bare. The blood being ſponged off, the orifice in the ſtricture was next ſearched for, and when found it was dilated. The catheter was now puſhed on to the bladder, although with ſome difficulty, and the end of it was then faſtened to a roller which went round the thighs; and the wound was diſtended with lint. He took on anodyne draught after the operation, and another at night. September 20, he had ſome pain in the head from the opiates; his pulſe was natural, and he had ſlept tolerably well. On the 21ſt day the catheter ſlipped out, and the ſecond introduction of it gave conſiderable pain.

pain. The anodyne was repeated. October 1. The catheter was ſtill to be felt by introducing a probe into the wound. From this time to the 25th, nothing material happened, excepting a piece of lint, of the firſt dreſſing, coming away through the urethra. November 20. The wound having for ſome time been ſtationary, and ſhowing no diſpoſition to heal, I conceived that the catheter was now acting as an extraneous body at the bottom of the wound, and therefore deſired that it might be withdrawn, and paſſed occaſionally; and no ſooner was the wound free from it but it put on a healthy look; and by the 10th of December no urine came through the wound, but paſſed tolerably well through the urethra; and on the 12th the wound was quite healed, and his water came from him rather in a full ſtream, and without pain, although we could never paſs either catheter or bougie afterwards, probably from the new and old paſſages being irregular.

CHAPTER VII.

OF SOME OTHER AFFECTIONS OF THE URETHRA.

THE ſubſtance of the urethra is muſcular, and it is therefore capable of contracting its canal, ſimilar to an inteſtine, ſo as to ſhut it up entirely. This makes it ſubject to diſeaſes peculiar to muſcle in general; which is indeed the only proof we have of its being muſcular.

I. OF THE SPASMODIC AFFECTIONS OF THE URETHRA.

IN a ſound ſtate of parts theſe muſcles are never excited to violent actions, acting ſimply as ſphincter muſcles; but when irritated they are capable of acting violently, as is beſt ſeen in ſome caſes upon the firſt uſe of injections, the urethra often refuſing the injection entirely. This ſeems rather to be a ſalutary motion to hinder things from getting into the bladder; but there are often ſpaſmodic contractions of theſe muſcular fibres in different parts of the canal, ſhutting up the paſſage and obſtructing the courſe of the urine, often not allowing a drop to paſs. That this alſo is owing to ſpaſm upon the muſcular fibres is evident, becauſe a large bougie will ſometimes paſs when it is at the worſt. When the contraction is near the bladder it is called a ſtrangury, and is often produced in a ſound ſtate of parts by irritating medicines, the power of which fall upon theſe parts, as cantharides; and when this part is in an irritable ſtate, the ſpaſm may be brought on by a vaſt number of things, ſuch as moſt of the peppers, fermented liquors of all kinds, violent exerciſe, &c.

The urethra in caſes of ſpaſmodic ſtricture is more irritable than in the true ſtricture, which irritation indeed is in a great meaſure the cauſe of the ſpaſm. Spaſmodic ſtrictures often bear ſo ſtrong a reſemblance to the cramp,

cramp, that one would be apt to attribute them to the ſame cauſe as that which produces cramp. In ſuch caſes the ſpaſm alſo goes off by tickling the part, ſimilar to the removal of cramp.

In all caſes of very irritable urethras, where ſpaſms very readily take place, the patient ſhould never long retain his urine when he has an inclination to void it; for I have ſeen caſes where this alone has brought on the ſpaſm; and indeed theſe parts, when in perfect health, will be thrown into a ſpaſmodic affection, if the urine is too long confined in the bladder; while at the ſame time a certain fulneſs of the bladder, or a ſmall degree of retention of the urine will make the bladder contract with more force; and the urethra will for the ſame reaſon relax more freely; therefore in caſes, where there is a tendency to ſtrangury, there is ſeldom any harm in waiting a little after the inclination comes on.

I may be allowed here to caution ſurgeons who have not had opportunities of ſeeing many of theſe caſes, when they meet with permanent ſtrictures which are becoming troubleſome, attended with frequency in making water, and a difficulty in paſſing it often threatening ſtrangury, not to adviſe, or rather not to allow, their patients to take long journeys either on horſeback or in carriages, more eſpecially in the winter. I have known many patients labouring under ſuch complaints taken ill in the middle of a journey, and obliged to ſtop for days upon the road, and who have continued in miſery the remainder of the journey; and after having arrived at the place of their deſtination, have been laid up for months, and have ſuffered from moſt of the before-mentioned complaints.

II. OF THE CURE OF THE SPASMODIC AFFECTION OF THE URETHRA.

It may not be improper to premiſe, that in diſeaſes of the actions only of the urethra and bladder, whether ſpaſmodic, and proceeding from too great irritability, or paralytic, (although two oppoſite diſeaſes) irritations on other parts have often wonderful effects, equally diminiſhing the action in the one, and increaſing it in the other. The proof of this will appear when

we ſhall treat of the irritable and paralytic urethra and bladder; for in either part, and in either caſe, we find bliſters applied to the lower part of the ſmall of the back, or the perinæum, as alſo many other applications to this part, often produce great effects.*

As ſpaſm ſimply is not an alteration of ſtructure, but is only a diſeaſed or preternatural action ariſing from ſome irritation, it may be made to ceaſe inſtantaneouſly. In whatever part of the urethra the ſpaſm is, if time will allow, it is proper to try internal medicines, and alſo external applications, to remove it. The internal medicines that may be ſaid to act immediately are opiates and turpentines,† given either by the mouth or the anus; but they are more immediate in their effects in the form of clyſter, eſpecially the opium. Bark is often had recourſe to in ſpaſmodic affections, in which it is thought to be of ſervice; but in ſuch affections of the urethra I think I have ſeen it frequently do harm.

The external applications are the ſteam of warm water with ſpirits, the pediluvium, the warm bath, bladders of warm water applied to the perinæum, and ſimilar applications. The crumb part of a new baked loaf, warm from the oven, applied to the perinæum, has been found to give eaſe.

I have known a bliſter, applied to the loins, in a great meaſure remove the ſpaſm from the urethra; it is equally effectual when applied to the perinæum. But in moſt caſes theſe methods are too tedious; therefore when the caſe has been of ſome ſtanding, before aſſiſtance has been called for, and requires immediate relief, recourſe ſhould be had to the catheter or bougie immediately.

* That the parts concerned in the expulſion of the urine (as the bladder and urethra) ſympathiſe ſtrongly with the ſkin of the perinæum, I believe is commonly ſuppoſed, from applications being often made to that part in caſes of ſtoppages of urine.

A gentleman who had no complaint in theſe parts, had a ſmall fiſtula at the ſide of the rectum, for which he often had occaſion to ſit over the ſteam of warm water and vinegar; and this application to the perinæum never failed of making him void his urine.

† Dr. Home, in his experiments on this medicine, found that large doſes brought on the ſtrangury in women.

Strangury is the frequent effect of ſpirit of turpentine taken for ſome time.

If

If the contraction is near the bladder, the catheter will anſwer beſt; but in moſt caſes the bougie will be ſufficient, and is a much ſafer inſtrument; for in many hands the catheter is a very dangerous one, requiring a dexterity only to be acquired by a thorough knowledge of the courſe of the canal, and a habit of paſſing it. The bougie has likewiſe this advantage, that in many caſes, where the part ſpaſmodically affected will not allow it to paſs, it may be allowed to lie cloſe to the ſtricture; for it is not always neceſſary for the bougie to paſs through the conſtrictured part; for a bougie, which has only paſſed a very little way in the urethra, has ſometimes been effectual, if ſuffered to ſtay there till the deſire of making water is perceived.

In ſuch caſes, even when the bougie paſſes into the bladder, it is neceſſary to let it ſtay in the paſſage till the inclination to make water comes on. If the water does not follow on the firſt attempt, it will be proper to make another; or if only part follows the bougie, it will be neceſſary to introduce it again. This circumſtance of the water following the bougie with more certainty, if it is allowed to ſtay till the inclination comes on, is a proof that the diſpoſition in the bladder to contracting, removes in ſome degree the diſpoſition to contraction in the urethra.

Some attention is neceſſary with reſpect to the paſſing of the bougie in theſe caſes; for the urethra being more irritable than common, it often reſiſts the bougie before it reaches the true ſpaſmodic part. When this is the caſe, force is not to be uſed; but we ſhould rather wait a little with patience, and then make another attempt to puſh it on. Dipping the end of the penis in very cold water often removes the ſpaſm, and the water flows immediately and freely.

In moſt caſes there is an uneaſy ſenſation at the end of the penis, which leads the patient to rub thoſe parts, and ſometimes, though rarely, during the friction, the water will paſs. Gently irritating injections, thrown in only a little way, often give eaſe. They may be ſuppoſed to act in a manner ſomewhat ſimilar to a bougie that does not paſs, and by irritating one part of the urethra to produce a relaxation in the other. They act in ſome caſes as a preventive.

III. OF

III. OF THE PARALYSIS OF THE URETHRA.

In oppoſition to the foregoing diſeaſe, there is the want of power of contraction of the urethra; but this is not ſo frequent a caſe as the former. This diſeaſe is attended with ſymptoms contrary to thoſe of the foregoing; the bladder is hardly allowed to be filled ſo as to give the ſtimulus of repletion; but the water dribbles away inſenſibly as faſt as ſecreted by the kidneys; or if the bladder is filled ſo as to receive the ſtimulus for expulſion, then it immediately takes place, and the water flows, if the perſon does not act with the muſculi acceleratores; but ſometimes in ſuch caſes the power of contraction of theſe muſcles is loſt, and then the water will flow, whether the perſon will or not, there being little or no power of retention. There is great difference in the degrees of violence of this diſeaſe.

IV. CURE OF THE PARALYSIS OF THE URETHRA.

It is to be cured by ſtimulants, as a bliſter to the loins, or a bliſter to the perinæum. It may be uſeful to immerſe the feet in cold water. Tincture of cantharides, taken internally, fifteen or twenty drops once or twice a day, according to the effects, are of ſingular ſervice in ſome caſes.

A man came to St. George's Hoſpital with this complaint. I ordered him the before-mentioned medicine, and it had ſuch an effect as to bring on the contrary diſeaſe, or a ſpaſmodic affection of the urethra, ſo that he could not make water when he had the inclination; but an injection of opium removed this complaint, and he was then well. In this caſe a few drops leſs, probably would have effected a cure without any inconvenience.

V. OF

V. OF CARUNCLES OR EXCRESCENCES IN THE URETHRA.

STRICTURES are not ſuppoſed to be the only cauſes of obſtruction to the paſſage of urine in this canal; excreſcences or caruncles are likewiſe mentioned by authors as happening frequently. From the familiarity with which they talk of them, and the few inſtances in which they really occur, one would ſuſpect that this cauſe of obſtruction was originally founded in opinion, and not obſervation, and afterwards handed down as matter of fact. If caruncles had been at firſt deſcribed from actual examination of caſes, the language would have accorded with the appearances, and they would have been conſidered as ſeldom the cauſes of obſtruction compared with ſtrictures. However they do ſometimes happen, although but rarely. I have in all my examinations of dead bodies ſeen only two, and theſe were in very old ſtrictures, where the urethra had ſuffered conſiderably. They were bodies riſing from the ſurface of the urethra like granulations, or what would be called polypi in other parts of the body. It is poſſible they may be a ſpecies of internal wart; for I have ſeen warts extend ſome way into the beginning of the urethra, having very much the appearance of granulations. Moſt probably it will not be poſſible in the living body to diſtinguiſh caruncles, excreſcences, or riſings in the urethra, from a ſtricture; for I cannot conceive that they can produce any new ſymptoms, or peculiar feel to the examiner.

VI. OF THE CURE OF THE EXCRESCENCE OR CARUNCLE.

I ſhould very much ſuſpect that this diſeaſe is not to be cured by the bougie; at leaſt dilatation in ſuch caſes is not to be attempted, as there is no contraction. If therefore the bougie is of any uſe, it muſt be in making the carnoſity ulcerate from its preſſure, which probably may be done by a large bougie preſſing upon it with conſiderable force. But if this ſhould not have

have the deſired effect, I ſhould certainly recommend or uſe the cauſtic, if the parts are ſo ſituated as to admit of the application; and from ſuch practice I ſhould not doubt of a cure. But the difficulty lies in diſtinguiſhing the diſeaſe from the true ſtricture; for although authors talk of caruncles as common, and give us the method of treatment, yet they have not told us how we are to diſtinguiſh them from ſtrictures.

I have never met with a caruncle in women.

CHAPTER

CHAPTER VIII.

OF THE SWELLED PROSTATE GLAND.

ANOTHER diſeaſe of the parts ſurrounding the urethra, which is often very formidable, is a ſwelling of the proſtate gland. This is of more ſerious conſequence than any of the former cauſes of obſtruction, becauſe we have fewer methods of cure, for we cannot deſtroy it as we do the ſtricture, nor can Nature relieve herſelf by forming new paſſages; we have, however, often the means of temporary relief in our power, which is not the caſe in the ſtricture; for moſt commonly we can draw off the water by the catheter.

The ſwelling of the proſtate gland is moſt common in the decline of life. The uſe of this gland is not ſufficiently known to enable us to judge of the bad conſequences that attend its diſeaſed ſtate, abſtracted from ſwelling. Its ſituation is ſuch, that the bad effects of its being ſwelled muſt be evident, as it may be ſaid to make a part of the canal of the urethra, and therefore when ſo diſeaſed as to alter its ſhape and ſize, it muſt obſtruct the paſſage of the urine. When it ſwells it does not leſſen the ſurface of the urethra at the part like a ſtricture; on the contrary, it rather increaſes it; but the ſides of the canal are compreſſed together, producing an obſtruction to the paſſage of the urine, which irritates the bladder and brings on all the ſymptoms in that viſcus that uſually ariſe from a ſtricture or ſtone. From the ſituation of the gland, which is principally on the two ſides of the canal, and but little, if at all, on the forepart, as alſo very little on the poſterior ſide, it can only ſwell laterally, whereby it preſſes the two ſides of the canal together, and at the ſame time ſtretches it from the anterior edge or ſide to the poſterior, ſo that the canal, inſtead of being round, is flattened into a narrow groove. Sometimes the gland ſwells more on one ſide than the other, which makes an obliquity in the canal paſſing through it.

Beſides this effect of the lateral parts ſwelling, a ſmall portion of it, which lies behind the very beginning of the urethra, ſwells forwards like a point, as it were, into the bladder, acting like a valve to the mouth of the urethra, which can be ſeen even when the ſwelling is not conſiderable, by looking upon the mouth of the urethra from the cavity of the bladder in a dead body. It ſometimes increaſes ſo much as to form a tumor,* projecting into the bladder ſome inches. This projection turns or bends the urethra forwards, becoming an obſtruction to the paſſage of a catheter, bougie, or any ſuch inſtrument; and it often raiſes the ſound over a ſmall ſtone in the bladder, ſo as to prevent its being felt. The catheter ſhould for this part be more curved than is neceſſary for the other parts of the urethra. In ſuch caſes I have frequently paſſed firſt a hollow elaſtic catheter till it has reached this point, and afterwards a ſtilet or braſs-wire properly curved ſo as to go over the proſtate gland. The advantages of this method are, that if the hollow catheter paſſes, no more is neceſſary; and, if it does not, the curved wire will paſs along the hollow bougie much eaſier both to the ſurgeon and patient than it would have done if it had been introduced at firſt with the hollow bougie over it; for it would endeavour to adapt the urethra to the curve; whereas, when introduced afterwards, the ſtilet acts only on the inſide of the hollow bougie, which the patient hardly feels.

A gentleman had been often ſounded for a ſtone, and yet no ſtone could be found; but it afterwards appeared that there was a ſtone, which, together with the ſwelling of the proſtate gland, had been the cauſe of his death.

John Doby, a poor penſioner in the Charter-houſe, had been ſeveral years afflicted with the ſtone in the bladder, and was relieved from all the ſymptoms by an enlargement of this part of the proſtate gland, preventing the ſtones from falling down upon the neck of the bladder and irritating thoſe parts. A twelvemonth after that the ſymptoms of the ſtone had gone off, he was attacked with a ſtrangury, to relieve which, many ineffectual attempts were made both with the bougie and catheter; but it ſoon proved

* Vide plates V and VII.

fatal.

fatal. Upon examination of the parts in the dead body, the proſtate gland was found enlarged to a ſize ſix times greater than what it is in common, and the urethra, paſſing through it, was a ſlit about an inch and half in length, the two ſides of which were cloſe together, the upper end towards the pubes and the lower towards the rectum. This ſlit was formed by the ſides of the proſtate gland only ſwelling, and the right-ſide was the moſt enlarged, having its ſurface next the urethra rounded or convex, and the left-ſide was exactly fitted to it, having its ſurface hollowed in the ſame proportion. The ſmall projecting point of the gland was ſo much enlarged as to come forwards into the cavity of the bladder and fill up entirely the paſſage at the neck of it. The bladder itſelf was very much enlarged and thickened in its coats, and contained above twenty ſtones, moſt of them lying behind the projecting proceſs of the proſtate gland, and the reſt lodged in ſmall ſacs, made by the internal membrane being puſhed ſome little way between the faſciculi of muſcular fibres.

The proſtate gland when ſwelled, generally becomes firmer in its conſiſtence. The effects of theſe ſwellings are very conſiderable, for they ſqueeze the ſides of the urethra cloſe together, and the projecting point hinders in ſome degree the urine from entering the paſſage, and in many caſes ſtops it entirely. Further, the increaſed firmneſs of the ſubſtance of the gland hinders it from yielding to the force of the urine, ſo that little or none can paſs. It will be unneceſſary to relate the particular ſymptoms which this diſeaſe occaſions; they are ſuch as ariſe from any ſtoppage of urine, producing an irritable bladder.

When a difficulty in making water takes place, a bougie is the inſtrument which the ſurgeon will naturally have recourſe to, and if he finds the paſſage clear, which he often will, in ſuch caſes he may very probably ſuſpect a ſtone. If ſearch is made and no ſtone felt, he ſhould naturally ſuſpect the proſtate gland, eſpecially if the ſound or inſtrument uſed meets with a full ſtop, or paſſes with ſome difficulty juſt at the neck of the bladder. He ſhould examine the gland. This can only be done by introducing the finger into the anus, firſt oiling it well, placing the forepart of the finger towards the pubes; and if the parts, as far as the end of the finger can reach, are hard, making an eminence backwards into the rectum, ſo that

the finger is obliged to be removed from ſide to ſide, to feel the whole extent of ſuch a ſwelling, and it alſo appears to go beyond the reach of the finger, we may be certain the gland is conſiderably ſwelled, and is the principal cauſe of thoſe ſymptoms.

I have known caſes where the common catheter has been puſhed through the projecting part of the gland into the bladder, and the water then drawn off; but in one patient the blood from the wound paſſed into the bladder and increaſed the quantity of matter in it. The uſe of the catheter was attempted a ſecond time, but, not ſucceeding, I was ſent for. I paſſed the catheter till it came to the ſtop, and then ſuſpecting that this part of the proſtate projected forwards, I introduced my finger into the anus, and found that gland very much enlarged. By depreſſing the handle of the catheter, which of courſe raiſed the point, it paſſed over the projection; but unfortunately the blood had coagulated in the bladder, which filled up the holes in the catheter ſo that I was obliged to withdraw it, and clear it repeatedly. This I practiſed ſeveral days; but ſuſpecting that the coagulum muſt in the end kill, I propoſed cutting him as if for the ſtone; but he died before it could be conveniently done, and the diſſection, after death, explained the caſe to be what I have now deſcribed.

In ſome of thoſe caſes where this part of the gland ſwells into the bladder in form of a tumor, the catheter has been known not to bring off the water at times when it appeared to have paſſed; and upon the death of the patient when the parts have been examined, it was imagined that the catheter, in the living body, had made its way into the tumor ſo as to have been buried in it at thoſe times.*

From the knowledge of the above-mentioned facts, whenever I find the urine does not flow immediately upon introducing the catheter into the bladder, I have puſhed it on and depreſſed the handle ſo as to reach the fundus of the bladder with the end of the catheter, and have always ſucceeded. For the more ready introduction of the inſtrument, a catheter made flexible at the point only for about an inch, is perhaps beſt, as it is more under the command of the hand than when wholly flexible.

* Vide plate VII.

If

If the bougie be uſed, it ſhould be firſt warmed and then very much bent at the point, and allowed to cool in this poſition, and paſſed quickly with the concave ſide upwards, before it loſes the bend in its paſſage. But the bougie does not anſwer ſo well as the catheter, becauſe upon withdrawing the bougie the ſides of the gland ſoon cloſe again. I have known where the water has paſſed by the ſide of the bougie with more freedom than when it was pulled out, becauſe the bougie gave a ſtraightneſs to this part of the canal, which it had not when the bougie was withdrawn. The following caſe is a ſtrong inſtance of the inconveniences ariſing from ſuch a diſeaſe of the proſtate gland.

A gentleman was attacked with a ſuppreſſion of urine; a catheter could not be paſſed, but a bougie relieved him. He continued well for five years; but the ſame complaint returning, the bougie could not be paſſed, and the diſeaſe was ſuppoſed to be a ſtricture. A catheter however paſſed, although with a good deal of difficulty; and the bougie, though often tried, could not be paſſed, excepting once, juſt after uſing the catheter. I was ſent for, and tried the bougie with as little ſucceſs, and was obliged to have recourſe to the catheter. I paſſed it with great eaſe, and the water was drawn off. The late Mr. Tomkyns, who had Daran's bougie, was called; but he was not more ſucceſsful, and was obliged to have recourſe to the catheter; but ſuch violence was uſed as cauſed a good deal of blood to come from the urethra, and after all it did not ſucceed. I was again conſulted, and paſſed the catheter, but with much more difficulty than before, which made me believe that the paſſage had been a good deal torn. Upon taking out the catheter I paſſed a large bougie into the bladder with great eaſe; this I allowed to remain for three days, and the patient made water tolerably freely by the ſide of it. The moment I drew out the bougie I attempted to paſs another, but did not ſucceed, although I gave it the natural bend of the paſſage. Upon withdrawing thoſe bougies that did not paſs, I obſerved that all of them had a bend at the point, contrary to the direction of the paſſage; this made me ſuſpect, that the place which ſtopped the bougie, was on the poſterior ſurface, and that by being puſhed on, it bent forwards into the paſſage, and of courſe the point turned back. I therefore took a thick bougie; and, before I introduced it, I bent the point

almoſt

almoſt double, ſo that it could not catch at the poſterior ſurface of the urethra, where I ſuppoſed the ſtop to be: this point of the bougie rubbed all along the anterior and upper ſurface of the urethra, by which means it avoided catching on the poſterior ſurface, and it paſſed with great eaſe into the bladder. He made water by the ſide of the bougie, as before. He had been for ſome time troubled with fits of an intermittent, which at firſt were very irregular, but became afterwards more regular. In one of the cold fits, the bougie, being in the urethra, gave him great pain, and obliged him at laſt to pull it out, on which he had immediate eaſe. The ſenſation was as if it ſtretched the paſſage too much, and it ſeemed to come out with difficulty. This looks as if there was a contraction of the urethra, as well as of the veſſels of the ſkin, in the cold fit; ſo that this diſpoſition runs deep. By giving the bougie this bend he was able for the future to paſs them with great eaſe. I may juſt obſerve, that by introducing the finger into the anus, I found the proſtate gland much enlarged.

Many patients, while labouring under any of the before-mentioned diſeaſes of the urethra, and ſometimes even after they have been cured of them, find great pain in throwing forwards the ſemen, having a ſenſation as if it ſcalded. This ariſes from the very irritable ſtate which the muſcles of this part are in, giving great pain by their own action.

I. OF THE TREATMENT OF THE SWELLED PROSTATE GLAND.

The methods, practiſed in the above caſes, afforded only temporary relief; yet ſuch muſt be had recourſe to in order to prevent the conſequences of retaining the urine too long. As a temporary relief from pain, as alſo to remove ſpaſm, opiate clyſters ſhould be thrown up once or twice a day. A certain cure, I am afraid, is not as yet diſcovered.

I have ſeen hemlock of ſervice in ſeveral caſes. It was given upon a ſuppoſition of a ſcrofulous habit. On the ſame principle I have recommended ſea-bathing; and have ſeen conſiderable advantages from it, and, in two caſes, a cure of ſome ſtanding.

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In one caſe in which I was conſulted, the ſurgeon had found that burnt ſponge had reduced the ſwelling of the gland very conſiderably.

This diſeaſe, like the ſtricture, produces complaints in the bladder; but in this the bladder is generally more irritable, perhaps from the cauſe being nearer to that viſcus.

Diſeaſes of the veſiculæ ſeminales are very familiarly talked of; but I never ſaw one. In caſes of very conſiderable induration of the proſtate gland and bladder, where the ſurrounding parts have become very much affected, I have ſeen theſe bags alſo involved in the general diſeaſe; but I never ſaw a caſe where it appeared that they were primarily affected.

In a caſe of a ſwelled proſtate gland, with ſymptoms of an irritable bladder, in a young gentleman about twenty years of age, Mr. Earle tried a bliſter to the perinæum; but not finding the deſired effect, and conceiving a greater irritation and diſcharge to be neceſſary, he paſſed a ſeton in the direction of the perinæum. The orifices were about two inches diſtant from each other. The ſymptoms of irritability in the bladder began to abate, and in time went entirely off. Upon examination of the proſtate gland, from time to time, it was found to decreaſe gradually till it was nearly of the natural ſize. The ſeton was continued ſome months, and upon its being withdrawn the ſymptoms began to return. It was adviſed to introduce it again; which was accordingly done, but without the former good effects.

CHAPTER

CHAPTER IX.

OF THE DISEASES OF THE BLADDER, PARTICULARLY FROM THE BEFORE-MENTIONED OBSTRUCTIONS TO THE URINE.

ALL the diſeaſes of the urethra, as alſo the diſeaſes of the proſtate gland, I have now treated of; and ſhall next conſider the effects of them upon the bladder; as alſo the diſeaſes of that viſcus, independent of affections of the urethra.

The diſeaſe of the bladder ariſing from obſtruction alone, is increaſed irritability, and its conſequences, by which the bladder admits of little diſtention, becomes quick in its action, and thick and ſtrong in its coats. But prior to the deſcription of the effects of the diſeaſes of the urethra on the bladder, it will be neceſſary, for the better underſtanding of the whole, to make ſome remarks upon thoſe diſeaſes of the two parts, in which we find that each effects the other; and theſe I ſhall conſider without having any regard to the cauſe, but only to the general effects, when they are diſeaſed. It may be obſerved, that every organ in an animal body is made up of different parts, the functions or actions of which are totally different from each other, although all tend to produce one ultimate effect. In moſt, if not in all, when perfect there is a ſucceſſion of motions, one naturally ariſing out of the other, which in the end produces the ultimate effect; and an irregularity alone in theſe actions will conſtitute diſeaſe, at leaſt produce very diſagreeable effects, and often totally fruſtrate the final intentions of the organs.

I may be allowed alſo to premiſe, that the natural width of the urethra gives ſuch a reſiſtance to the force or power of the bladder in expelling the urine, as is eaſily overcome by the natural action of the bladder; but when the canal is leſſened, either by ſtricture, ſpaſm, ſwelled proſtate gland, or

any

any other means, this proportion is loſt, by which means the bladder finds greater difficulty than natural, and is of courſe thrown into an increaſed action to overcome the reſiſtance, which becomes a cauſe of the irritability and increaſed ſtrength of this viſcus in ſuch diſeaſes.

It is to be underſtood, that in a ſound ſtate of theſe two parts, the bladder and urethra, the contraction of the one produces a relaxation of the other, and vice verſa; ſo that their natural actions are alternate, and they may be conſidered as antagoniſt muſcles to one another. Thus when the ſtimulus of expulſion of the urine takes place in the bladder, which immediately produces contractions in it, the urethra relaxes, by which means the urine is expelled from the bladder, and allowed to paſs through the urethra; and when the action ceaſes in the bladder, the urethra contracts again like a ſphincter muſcle,* for the purpoſe of retaining the urine which flows into the bladder from the kidneys till it gives the ſtimulus for expulſion again. But in many diſeaſes of theſe two parts, this neceſſary alternate action is not regularly kept up, the one not obeying the ſummons of the other. This irregularity ariſes perhaps oftner from diſeaſe in the urethra, than in the bladder; for the action of the urethra depends upon the actions of the bladder; and if it is not diſpoſed to obey the notices of the bladder, then there muſt be an irregularity as to time, which produces very troubleſome ſymptoms.

We find in many diſeaſes of the urethra, ſuch as ſtrictures and ſpaſms, as alſo in diſeaſes of certain parts belonging to this canal, ſuch as the proſtate, and Cowper's glands, that there is a greater diſpoſition in this canal for contraction, than common, ſo that when the bladder has begun to act, the water is not allowed to flow, the urethra not immediately relaxing; and the moment ſuch a ſymptom takes place, every other power takes the alarm, and is brought in to aſſiſt the bladder, ſuch as ſtraining violently

* It may be remarked, that many ſphincter muſcles have two cauſes of action; one which may be called involuntary, depending on the natural uſes and actions of the parts; the other is voluntary, where a greater degree of action can be produced by the command of the will: and when a diſeaſed action takes place, it is probably of this voluntary action, for it is an increaſed action over the natural, which the voluntary is.

with the abdominal muſcles, and muſcles of reſpiration, from all which there is violent pain in the parts immediately concerned, eſpecially in the glans penis.

This diſeaſe has different degrees of violence. When ſlight, the diſtance in time between the contraction of the bladder, and the relaxation of the urethra is but ſhort, only giving a momentary pain and ſtraining, before the urethra relaxes, and the water flows according to the dilatation of the urtehra, which, in many of theſe caſes, is but very ſmall. In others the diſtance of time is very long, many ſtraining for a conſiderable time before a drop will come; and what does come is often only in drops; and ſometimes before the whole urine can be expelled in this way, the ſpaſm of the urethra comes on again, and there is a full ſtop which gives excruciating pain for a while; but at laſt the bladder is as it were tired, and ceaſes to act. But as the urine in ſuch caſes is ſeldom all diſcharged, and often but a very little of it, the ſymptoms ſoon recur; and in this way, with a call to make water perhaps every hour out of the four and twenty, the patient drags on a miſerable life.

The bladder, in all caſes of obſtruction, whether conſtant, as in the permanent ſtricture, or ſwelled proſtate gland, or only temporary, as in the ſpaſmodic ſtricture, is generally kept diſtended, but much more ſo in the permanent ſtricture; and when the irritation of fulneſs comes on, which is very frequent, the contraction of that viſcus becomes violent, in proportion to the reſiſtance: the ſympathetic contraction of the muſcles of the abdomen takes place, and is alſo violent, yet the water at ſuch times ſhall only dribble, and be diſcharged in ſmall quantity; and in the ſpaſmodic ſtricture often not a drop ſhall paſs, ſo that the bladder is never entirely empty; and what does paſs is no more than what is ſufficient to take off the irritation of fulneſs; by which means theſe actions become more frequent, and conſequently there is almoſt always a conſtant oozing of urine from the penis between the times of making water. This however is not always the caſe, for the bladder ſometimes is ſo irritable as not to ceaſe acting till it has evacuated the whole water; and even then it is not at eaſe, but ſtill ſtrains though there is nothing to throw out, the action of the bladder becoming a cauſe of its own continuance.

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In all ſuch affections of the bladder there is a ſenſation of pain and itching combined in the glans penis.

If the ſymptoms are more urgent than what can be accounted for upon the ſuppoſition of a ſtricture or diſeaſe of the proſtate gland, a ſtone is to be ſuſpected.

I. OF THE TREATMENT WHERE THE ACTIONS OF THE URETHRA AND BLADDER DO NOT EXACTLY ALTERNATE.

The cure, where the diſeaſe ariſes from ſpaſm alone, conſiſts in removing the diſpoſition to over-action in the urethra, and the irritable diſpoſition of the bladder when the urethra does not obey it. Perhaps opiate clyſters, as a temporary means of relief, are the very beſt medicines that can be adminiſtered. I have known a bliſter to the loins, or to the perinæum, remove the ſpaſm, in a great meaſure, from the urethra.

When the circumſtance of the ultimate actions of theſe parts not being regular ariſes from ſtricture, ſwelled proſtate gland, or any mechanical obſtruction to the urine, then that cauſe muſt be removed, as has been fully deſcribed in the treatment of theſe diſeaſes.

II. OF THE PARALYSIS OF THE BLADDER FROM OBSTRUCTION TO THE PASSAGE OF THE URINE.

We may obſerve that the bladder is a part eaſily deprived of its power of contraction; for we find in many debilitating diſeaſes and long illneſſes from any cauſe, as fever, gout, and conſiderable local diſeaſes which debilitate, that the bladder often becomes paralytic, and the water muſt be drawn off. We may alſo obſerve when the bladder has been diſtended conſiderably, from whatever cauſe, ſo as to have its contractile power deſtroyed, that there is a conſiderable extravaſation of blood from the inner ſurface of the bladder, ſo that the water which is evacuated is often extremely

trèmely bloody. I have ſeen in caſes where the patient has died with this obſtruction upon him, that the inner membrane of the bladder has been almoſt black, being loaded with extravaſated blood, but this ſymptom of bloody urine goes off, as the bladder acquires again its power of action.

In the diſeaſes of the urethra, before-deſcribed, when not properly, or in time, attended to, and in caſes of ſtricture, where Nature has not been able to relieve herſelf, the water muſt of courſe be retained in the bladder, which is perhaps always productive of another diſeaſe, that is, the loſs of the power of contraction of that viſcus. Although this one effect, the retention of urine, ariſes from very different cauſes, as before-related, yet immediate relief muſt be given in all of them, which can only be effected by the evacuation of the water. According to the nature of the obſtruction, the mode of evacuation will be different, and will be of two kinds, one by the natural paſſage by means of an hollow tube, the other by an artificial opening made into the bladder.

If the cauſes of ſuppreſſion are either ſpaſmodic affections of the urethra, a ſwelled proſtate gland, inflammation in the ſurrounding parts of the urethra, or tumors preſſing upon it, as happens in pregnant women, immediate relief may be procured by means of a catheter, becauſe under ſuch circumſtances a catheter will moſt probably paſs, the ſides of the canal being merely forced together by ſpaſm, or external preſſure.

A bougie, although it will alſo paſs under ſuch circumſtances, will not anſwer ſo well, becauſe a bougie muſt be withdrawn before the water can flow, which will allow the cauſe of the obſtruction to exert again its full force; and if the ſpaſm ſhould not now exiſt, yet the bougie will not anſwer, unleſs there be a power of action in the bladder; for it is with difficulty that the urine can be made to paſs through the urethra, by preſſing the abdomen only.

When the catheter is paſſed, it will be neceſſary to make the patient ſtrain with his abdominal muſcles, as alſo with his muſcles of reſpiration, to ſqueeze out the water, the bladder having no power of contraction, and even this will not be ſufficient, for it will be neceſſary to preſs on the region of the pubes, with the hand, to make the water flow.

In caſes where there is a conſiderable degree of debility in the bladder, or in thoſe caſes where there is a conſiderable ſtrangury and of long ſtanding,

and

and where a ſmall quantity of urine in the bladder gives the ſtimulus of fulneſs to that viſcus, which is always attended with conſiderable urgency to make water; and where only very ſmall quantities are evacuated, the bladder not being emptied at each time of making it, and when a catheter, either rigid or flexible, can with readineſs be paſſed, the queſtion is, What is the beſt way upon the whole to evacuate the water? There are three ways in which it can be done, one, by allowing the parts to do their own buſineſs as much as they can, and this at firſt ſight might be ſuppoſed to be the very beſt; but it is in ſome caſes the very worſt; for the frequency of the inclination to make water, ariſing from the water not being wholly evacuated each time, the evacuation not readily taking pl ce, increaſes the effort, and for a few minutes produces excruciating pain, keeping up a conſiderable and almoſt conſtant irritation in all thoſe parts, which few can bear. Another method is, to draw off the water each time with a catheter, but this in many caſes is next to impracticable; for ſuppoſing the operation to be performed only twice or three times in the day, we ſhall find that this is oftner than what ſhould be done. The third method is, to leave the catheter almoſt conſtantly in the bladder.

Which of theſe three methods is likely to give, on the whole, the leaſt irritation muſt depend upon circumſtances attending different caſes. Where the frequency and the urgency is great, and the flowing of the water difficult, either the ſecond or the third is to be purſued; and when the ſymptoms are ſuch that a catheter muſt be paſſed very often, I believe it had better be left in, only taking it out occaſionally. I think this is ſupported by obſervation and experience.

It ſometimes happens in caſes of ſwelled proſtate gland, that the catheter cannot be paſſed without the utmoſt difficulty, and when this has been the caſe I have left it in the bladder, for fear of not being able to paſs it again, and continued it there till the bladder has ſufficiently recovered its tone, which is known by its being able to throw the urine through the catheter; after which that inſtrument may be withdrawn.

If the ſpaſm, in ſuch caſes as ariſe from that cauſe, ſhould ſtill continue after the bladder has recovered its tone, we muſt continue the uſe of the catheter. But it often happens that the ſpaſm leaves the urethra before the

the bladder recovers its power of contracton, the diſeaſe becoming then ſimply a paralyſis of that viſcus.

One of the firſt ſymptoms of the bladder beginning to regain its power of contraction is, the ſenſation of fulneſs, or an inclination to make water, and when that ſenſation comes on the patient ſhould be allowed to make water, but not to force it, for that circumſtance alone will bring on the ſpaſm if the urethra is not very ready to dilate. I have ſeen however in ſome caſes, that a ſlight ſenſation is not altogether to be depended upon, for it required a little retention more effectually to ſtimulate the bladder to action, and then the water has paſſed more freely.

The ſpaſmodic contraction of the urethra does not appear to give up its action ſimply upon the ſtimulus or inclination to make water, and not till the bladder begins to have the power of contraction; for in caſes where the bladder is paralytic, and yet ſenſible of the ſtimulus ariſing from being full, as it does not contract, the urethra does not relax, and the water cannot be made to paſs.

It would appear, that, as the bladder recovers of the paralyſis, it is not able to contain ſo much water as uſual. Therefore the patients are obliged to make water often, and of courſe in ſmall quantities.

III. OF THE CURE OF THE PARALYSIS OF THE BLADDER, FROM OBSTRUCTION ARISING FROM PRESSURE OR SPASM.

The removal of the cauſes of the paralyſis of the bladder was fully deſcribed when we were treating of the diſeaſes which produce that complaint, and the immediate relief, when the bladder is rendered inactive, has juſt now been conſidered; the paralyſis itſelf is therefore the only remaining thing to be attended to. In this diſeaſe there are often contrary indications of cure, for a ſpaſm is very different from a paralyſis; and if the ſuppreſſion is from ſpaſm, and that ſtill continues, then what may be good for the paralyſis, may be bad for the ſpaſm. As in ſuch caſes the water can be drawn off, the bladder ſhould be firſt attended to. Stimulants and

ſtrengtheners

ſtrengtheners are uſeful; bliſters to the loins to rouze the bladder to action, and bliſters to the perinæum, to take off the ſpaſm from the urethra, often ſucceed. Electricity is ſometimes of ſingular ſervice, when applied in ſuch caſes to the perinæum. Through the whole of the cure the urine muſt be drawn off frequently, becauſe the bladder ſhould not be allowed to be diſtended, which otherways would be the conſequence; and the ſenſation ariſing from the diſtention of that viſcus is a very oppreſſive one.

A gentleman was at times attacked with a difficulty in making water, which he paid no attention to, as it had always gone off; but at laſt he was obliged to have recourſe to the catheter, which afforded only a temporary relief. The ſpaſm continued, and I was ſent for. When I paſſed the catheter, I was obliged to preſs the lower part of the abdomen to ſqueeze out the water, for the bladder appeared to give but little aſſiſtance. I ordered a bliſter to the loins, which gave ſome power of contraction to the bladder, and took off ſome of the ſpaſm in the urethra, but ſtill he was very little relieved. I then directed a bliſter to be applied to the perinæum, which immediately removed his complaint.

CHAPTER

CHAPTER X.

OF A SUPPRESSION OF URINE—AND OPERATIONS FOR THE CURE OF IT.

IN caſes of total ſuppreſſion of urine ariſing from ſtrictures, or other cauſes where a catheter cannot be paſſed, and where every other method recommended is impracticable, an artificial opening muſt be ma e into the bladder for the evacuation of the water. There are three places where this opening may be made, and each has had its advocates. This operation has not been conſidered in all its circumſtances in different patients, ſo as to direct the young ſurgeon in the variety of caſes that may occur; for under ſome circumſtances the operation is more adviſeable in one place than another; and indeed it may ſometimes be next to impoſſible to perform it in a particular part.

The opening may be made firſt in the perinæum, where we now cut for a ſtone; ſecondly, above the pubes, where cutting for the ſtone was formerly practiſed; and thirdly, from within the rectum, where the bladder lies in contact with the gut.

The firſt queſtion, which naturally occurs, is, Which of thoſe ſituations is the moſt proper for the ſafety of the patient, the evacuation of the water, and the conveniency of operating, when no particular circumſtance forbids either of the ſituations?

On the firſt view of the ſubject, one would be apt to prefer that above the pubes, or from the rectum, as the bladder is nearer to either, and the parts more adapted to an operation than from the perinæum, where we muſt cut at random. Theſe two ſituations, although the moſt proper in this reſpect, under certain circumſtances, yet may become the moſt improper, for they are ſubject to greater changes than the perinæum.

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The reaſons that may render it very improper above the pubes are, the perſons being very fat, or the bladders not diſtending ſufficiently ſo as to riſe above the pubes, which is common enough in diſeaſes of thoſe parts.

In very fat people it will be found that the ſubſtance to be cut through may be three, or four inches, which will not only make the operation very unpleaſant, but often improper; for ſuch thickneſs of parts will make the ſwell of the bladder very obſcure and uncertain; in many the bladder is ſo diſeaſed as to allow of but little diſtention, and in ſuch the ſymptoms of fulneſs come on very early, perhaps when there is only a few ounces of water collected. But if the retention has been for ſome conſiderable time, as twenty-four hours, then we may ſuppoſe that the bladder has allowed of diſtention to a much greater degree, which may in ſome caſes be aſcertained by introducing the finger into the rectum.

But where the bladder diſtends, and the parts are ſo thin that it can be plainly felt above the pubes, I ſee no material objection to this ſituation; and it has this advantage over the operation by the rectum, that a catheter can more eaſily be introduced, and kept in, which will be neceſſary to be done till the cauſe is removed.

It may be neceſſary here to mention ſome precautions reſpecting the keeping the inſtrument in the bladder; as alſo the beſt kind to be uſed. It muſt be an hollow tube, and ſhould reach as far as the poſterior ſurface of the bladder, for upon the contraction of that viſcus its anterior part recedes backwards and downwards from the abdomen towards its fixed point, which may draw the bladder off from the tube. But as the diſtance between the ſkin of the abdomen and poſterior ſurface of the bladder cannot be exactly aſcertained, the cannula may be either too long, or too ſhort; if too long, its end may preſs upon the poſterior ſurface of the bladder and produce ulceration there, and in time work its way into the rectum. To avoid this miſchief, as alſo the inconveniences ariſing from its being too ſhort, and the bladder ſlipping off from its end, I would recommend the tube to be made with a curve, and to lie with its convex ſide on the poſterior part of the bladder, which being a large ſurface, and following nearly the ſame curve as the cannula, leſs miſchief is to be expected. The openings into the cannula may be made on the concave ſide.

It would probably be both ſafer and eaſier for the patient, to have the curved end of the catheter introduced into the urethra from the bladder. The paſſing of it into the urethra is very practicable; and we know that ſuch a body lying in the urethra is not productive of any miſchief. A common catheter paſſed in this way enters ſo far as to bring the handle almoſt flat to the belly, at moſt only a little bolſter between the catheter and belly is neceſſary, and then with a piece of tape fixed to the handle of the catheter it might be faſtened to the body; or a ſhort catheter might be made with ears to fix the tape to.* In caſes where the cannula has remained in the urethra ſome time, the artificial paſſage will become in ſome degree permanent, ſo that it may be taken out occaſionally, and cleaned from any ſtony matter that may be attached to it. To avoid this part of the operation it has been recommended to have two cannulas, one within the other, that by drawing out the inner it may be cleaned, and again introduced; but in moſt caſes it will alſo be neceſſary to withdraw the outer one, as its external ſurface will contract a cruſt.

The ſecond method, or puncture by the anus, will more commonly admit of being performed than that above the pubes; for it does not require that diſtention of bladder which the other does, therefore not ſo often impracticable from that cauſe; and perhaps the only obſtacle here is a ſwelled proſtate gland. In many of theſe caſes of diſeaſes of the urethra, the proſtate gland is very much ſwelled, which I can conceive may make the proper place for the puncture very uncertain; for the proſtate gland, in ſuch caſes, will be preſſed down towards the anus, before the bladder, and will be the firſt thing felt by the finger. Care muſt therefore be taken to diſtinguiſh the one from the other, which can only be done by getting the finger beyond the proſtate gland, which may not be practicable; and if practicable, it may not be an eaſy matter to diſtinguiſh the one from the other, as a thickened and diſtended bladder may ſeem to be a continuation of the ſame

* Where this operation is performed in conſequence of a ſtricture, I have conceived that by paſſing a catheter into the urethra from the bladder till it comes to the ſtricture, and then paſſing another ſtraight cannula from the glans down the urethra, that the two may nearly meet, only having the ſtricture between them; and a piercer may be paſſed down and forced into the end of the one from the bladder, and afterwards either a bougie or hollow catheter introduced.

tumor.

tumor. However, if the objections given to the performing it above the pubes exiſt, I ſhould prefer operating by the rectum; for although the probability of ſucceeding here may not be apparently greater than above the pubes, yet the chances are in its favour.

I muſt however obſerve here, that the objections which I have ſtarted, are only raiſed in my own mind from my knowledge of the diſeaſes of thoſe parts, and not from caſes of ſuppreſſion of urine under all the before-mentioned circumſtances having occurred to me in practice.

A caſe of a total ſuppreſſion of urine ariſing from ſtricture, where no inſtrument could be paſſed by the natural paſſage, and where a puncture was made into the bladder, from the rectum, with ſucceſs, is related in the Philoſophical Tranſactions, by Dr. Hamilton of Kings-Lynn in Norfolk.*

What led Dr. Hamilton to do it here, was a difficulty which was found in paſſing the clyſter-pipe into the rectum, which induced him to introduce his finger into the anus, and he found the bladder ſo prominent in the rectum as to give the hint of performing the operation there.

The man was put into the ſame poſition as in the operation for the ſtone, and a trochar was introduced upon the finger into the anus, and thruſt into the lower and moſt prominent part of the tumor, in the direction of the axis of the bladder, and upon withdrawing the piercer the water flowed out through the cannula.

A ſtraight catheter was then introduced through the cannula, leaſt the orifice in the bladder ſhould be drawn off from the cannula.

Then the cannula was pulled out over the catheter, which was left in till the whole water was evacuated, and was then withdrawn.

The bladder, notwithſtanding this perforation, retained the water as uſual, till the inclination to make it came on; and when he performed the action of making water, the orifice in the bladder ſeemed to open, and it ruſhed out by the anus. This continued about two days, when the water began to find its natural paſſage, and a bougie was introduced into the bladder, through the urethra, which gave a free paſſage for the water, and of courſe leſs came by the anus; ſo that on the ſixth day after the operation

* Philoſophical Tranſaction for the Year 1776, vol. 66, page 578.

the whole came by the natural paſſage. The man continued the uſe of the bougie till the ſtricture was dilated. Dr. Hamilton further remarks, that in thoſe caſes of ſuppreſſion of urine, in general, he has found that calomel and opium, in large doſes, anſwer better than any thing he has tried. He is convinced, from repeated trials, that the ſpecific efficacy is in the calomel, as large doſes of opium alone have proved ineffectual; but he does not ſay that calomel alone will anſwer. He orders ten grains of calomel with two of opium, to be repeated in ſix hours if it has not anſwered in that time; and he ſays he has ſeldom been obliged to give a third doſe.

This method of tapping the bladder was firſt ſuggeſted by Monſ. Fleurant, ſurgeon to the Charité, at Lyons, in the year 1750. The operation was performed at that time, and an account of it was afterwards publiſhed by Monſ. Pouteau, in 1760, with the hiſtory of three caſes, in all which the operation was performed by Monſ. Fleurant. The propriety of performing the operation in this part occurred to him in a manner ſimilar to that before-related of Dr. Hamilton; for in introducing the finger into the rectum to examine the ſtate of the bladder in a caſe where he was going to puncture in the perinæum, he found the bladder ſo prominent there, and ſo much within the reach of his inſtrument, that he immediately altered his intention, and performed it in this part. He very readily drew off the water, and kept the cannula in, with a T bandage, till the urine came the right way, and then withdrew it, and all terminated well. But there was a good deal of trouble on account of the cannula being left in on going to ſtool, as alſo from the conſtant dribbling of the water through it, all of which was prevented in Dr. Hamilton's caſe, by removing the cannula immediately upon the evacuation of the water. This was productive of another good effect, which was the retention of the urine till the ſtimulus of fulneſs was given, and then it paſſed through the artificial as it would through a natural paſſage. Should this be a conſtant effect in conſequence of performing the operation here, I think it muſt be owned to be an unexpected circumſtance which at firſt could not have been imagined.*

* A hiſtory, with a deſcription of this operation, is publiſhed by Mr. Reid, ſurgeon, of Chelſea, in 1778.

In

In another patient of Monſ. Fleurant's, the cannula was kept in the anus and bladder thirty-nine days, without any inconveniency; ſo that the objection to this part of the operation cannot be material. Pouteau mentions one caſe where he performed this operation, in the year 1752, and the man died.* He ſays, I was called to viſit a poor man ſuffering under a retention of urine, ſo obſtinate and violent that it had already the ſymptoms of what is called a reflux of urine into the blood; and the complaint had continued more than three days. An empiric, to whoſe care he had been entruſted, after having very improperly given him the moſt powerful diuretics, had likewiſe the raſhneſs to ſearch him. It appears probable, that theſe attempts, which were made without ſucceſs, muſt have increaſed the miſchief. A catheter could not be paſſed into ſuch parts by unſkilful hands, without increaſing the inflammation. I only made three ſlight efforts to effect a paſſage into the bladder by the urethra, which appeared to be much diſeaſed, as well by the effuſion of blood, as the extreme pain which theſe attempts produced. I determined at once to do as before, and plunged my trochar by the rectum into the bladder. The ſucceſs was exactly the ſame; the bladder was entirely emptied, and I allowed the cannula to remain there a whole night and a day, during which time the urine flowed without intermiſſion. Every thing went on without any accident which could be ſuppoſed connected with the operation; and death, which happened next day, was entirely independant of it.

One muſt ſuppoſe with Pouteau, that the death of the patient could not have ariſen from this operation, but from the preceding diſeaſes.

The bags called veſiculæ ſeminales, and the hæmorrhoidal veſſels, have been mentioned as parts in danger of being wounded in the operation, and thereby proving troubleſome; but if either of them are wounded, no inconvenience can ariſe. To avoid the veſiculæ ſeminales, it is recommended to perforate high up, and directly in the middle of the bladder, between the two ſides; and this ſituation is, at the ſame time, the one where the hæmorrhoidal veſſels are the ſmalleſt, and therefore it is of leſs conſequence if they are wounded.

* Pouteau Melanges de Chirurgie, printed at Lyons, 1760, page 506, 507, and 508.

It

It muſt appear from the following caſe, ſent me by a gentleman, that a communication being kept up between the bladder and rectum, is only inconvenient, and not ſo much ſo as might be expected.

" With reſpect to the ſailor who paſſed his urine by the rectum, I have examined the few papers by me, but cannot find the particular remarks I made; however, as the caſe was ſingular, I recollect the man told me, that a few years before, (this was at Madras hoſpital, in December 1779) he had the venereal diſeaſe, very bad, and long; that the urine came by the anus, but this paſſage healed up, and it came by the penis, and continued to do ſo till he caught the diſeaſe again, when the urine found its way a a ſecond time by the anus, and came that way for years. When he firſt came under my care, in the hoſpital at Bombay, February 1779, he felt no uneaſineſs or inconvenience from this manner of paſſing his urine; whenever he had an inclination to make water he ſat down. I often made him lie upon his breaſt, with his legs drawn up, and the ſtream came through the anus with great force."

In other caſes, in conſequence of abſceſſes forming between the bladder and rectum, where they have not healed up, there has been a reciprocal paſſing of the contents of theſe cavities from the one to the other.

It only remains to ſpeak of the puncture in the perinæum. An obſtruction to the urine taking place in the natural paſſage prevents us from introducing an inſtrument in moſt of thoſe caſes, and deprives us of all the advantages we could receive from it as a guide in the operation; yet there may be caſes of ſtricture, where by cutting into the urethra, beyond the ſtricture, the water will flow; but this muſt be done without any guide or direction, and requires a nice and accurate knowledge of the parts; or if the obſtruction ariſes from the valvular projection of the proſtate gland, a ſtaff may be paſſed as far as this projection, and cut upon as for the ſtone, the ſurgeon only making a ſmaller inciſion, uſing a ſmall gorget, or, in the room of that, a trochar of a particular form might be run along it into the bladder; for although the ſtaff does not enter the bladder, yet the diſtance to paſs through without this guide is but ſmall. If this cannot be done, a ſmall and deep inciſion may be made in the perinæum, with an impoſthume lancet towards the bladder; the point of the trochar is to be introduced

introduced by this, the ſurgeon paſſing at the ſame time the forefinger of the other hand into the anus, which will be a guide both for the direction of the inſtrument, as alſo to avoid its point paſſing into the rectum. With theſe precautions the error cannot be great.

I muſt own, however, that I have not ſeen caſes enough to enable me to give all the varieties that commonly happen, and of courſe to give all the advantages and diſadvantages of each method.

I. OF ALLOWING A CATHETER TO REMAIN IN THE URETHRA AND BLADDER.

In caſes of debility of the bladder, and where a catheter paſſes with difficulty, or with great uncertainty, and in caſes where it muſt be uſed frequently, and for a length of time, it will be neceſſary to keep an inſtrument in the urethra and bladder, ſo as to allow the water to paſs through it freely. A common catheter, or one made of the elaſtic gum is perhaps the beſt inſtrument; but it muſt be fixed in the canal; this will be beſt done by its outer end being tied to ſome external body, as I ſhall now deſcribe. When the catheter is fairly in the bladder, the outer end is rather inclined downwards, nearly in a line with the body. To keep it in this poſition we may take the common ſtrap or belt-part of a bag-truſs, with two thigh-ſtraps either fixed to it or hooked to it, and coming round each thigh forwards by the ſide of the ſcrotum, to be faſtened to the belt where the ears of the bag are uſually fixed. A ſmall ring or two may be fixed to each ſtrap juſt where it paſſes the ſcrotum or root of the penis; and with a piece of ſmall tape, the ends of the catheter may be fixed to thoſe rings, which will keep it in the bladder. A bit of rag about four or five inches long, with a hole at the end of it, paſſed over the exterior end of the catheter, and the looſe end allowed to hang in a baſon, placed between the thighs, will catch the water which cannot diſengage itſelf from the catheter, and keep the patient dry; or if another curved pipe is introduced into the catheter it will anſwer the ſame purpoſe.

Under

Under ſuch treatment the bladder will never be allowed to be diſtended; and when the patient wants to have the bladder in ſome degree emptied, he has only to ſtrain with his abdominal muſcles, by which means he will be able to throw out a great deal at each time.

As the bladder begins to recover its actions, the patient will find that an inclination to make water will come on, and at thoſe times he will alſo find that the water will come from him without ſtraining with the abdominal muſcles; when this takes place readily, the catheter may be taken out, and it will be found that he will be able in future to make water of himſelf. If it is neceſſary to keep in the catheter a conſiderable time, it will be the cauſe of a great deal of ſlime and mucus being formed in the urethra and bladder; but I believe this is of no conſequence. I have known a catheter kept in this way for five months without any inconveniency whatever.

In all caſes where it is neceſſary to keep an extraneous body for a conſiderable time in the bladder, whether in an artificial paſſage or the natural one, it will be proper a few days after its firſt introduction to withdraw it and examine whether it is incruſting, or filling up in its cavity with the calculous matter of the urine. If, after remaining in the bladder for ſome days, it has contracted none, we need be under no apprehenſions of its doing it; but if, as frequently happens, it ſhould have collected a conſiderable quantity, then it will be neceſſary to have it occaſionally withdrawn and cleaned. The beſt method probably of doing this is to put it in vinegar, which will ſoon diſſolve the ſtony matter.

II. OF THE INCREASED STRENGTH OF THE BLADDER.

The bladder, in ſuch caſes as have been deſcribed, having more to do than common, is almoſt in a conſtant ſtate of irritation and action; by which, according to a property in all muſcles, it becomes ſtronger and ſtronger in its muſcular coats; and I ſuſpect, that this diſpoſition to become ſtronger from repeated action, is greater in the involuntary muſcles than the voluntary; and the reaſon why it ſhould be ſo, is, I think, very evident; for

for in the involuntary muſcles the power ſhould be in all caſes capable of overcoming the reſiſtance, as the power is always performing ſome natural and neceſſary action; for whenever a diſeaſe produces an uncommon reſiſtance in the involuntary parts, if the power is not proportionally increaſed, the diſeaſe becomes very formidable; whereas, in the voluntary muſcles, there is not that neceſſity, becauſe the will can ſtop whenever the muſcles cannot follow; and if the will is ſo diſeaſed as not to ſtop, the power in voluntary muſcles ſhould not increaſe in proportion.

I have ſeen the muſcular coats of the bladder near half an inch thick, and the faſciculi ſo ſtrong as to form ridges on the inſide of that cavity;* and I have alſo ſeen the faſciculi very thin, and even wanting in ſome parts of the bladder, ſo that a hernia of the internal coat had taken place between the faſciculi, and formed pouches.† Theſe pouches ariſe from the thin parts not being able to ſupport the actions of the ſtrong; as happens in ruptures at the navel, or rings of the abdomen.

III. OF THE DISTENTION OF THE URETERS.

It ſometimes happens that the irritation from the diſtention of the bladder, and the difficulty in throwing out its contents, is ſo great, that the urine is prevented from flowing freely into that viſcus from the ureters, which become thereby preternaturally diſtended. The pelvis of the kidneys, and infundibula are alſo enlarged; but how far this dilatation of the ureters and pelvis is really owing to a mechanical cauſe I am not ſo clear; or whether it is not a diſpoſition for dilatation ariſing out of the ſtimulus

* This appearance was long ſuppoſed to have ariſen from a diſeaſe of that viſcus: but upon examination I found that the muſcular parts were ſound and diſtinct; that they were only increaſed in bulk in proportion to the power they had to exert; and that it was not a conſequence of inflammation, for in that caſe parts are blended into one indiſtinct maſs.

† This is perhaps the cauſe of the ſtone being often found in a pouch formed in the bladder: for the bladder in caſes of ſtone is often very ſtrong, which ariſes from the violent contraction of that viſcus, cauſed by the irritation of the ſtone on the ſides of it; and alſo from the ſtone being often oppoſed to the mouth of the urethra in the time of making water.

given by the bladder. In ſome caſes of long ſtanding, where the bladder was become very thick, and had been for a long time acting with great violence, it had affected the mamillæ, ſo that the ſurface of theſe proceſſes produced a matter, and perhaps even the ſecreting organs of the kidneys, ſo that the urine ſecreted was accompanied with a pus, ariſing from the irritation being kept up in all theſe parts.

The urine in the above caſes is generally ſtale, even before it is thrown out of the bladder, which when joined with the circumſtance of the linen being conſtantly kept wet, by the almoſt continual diſcharge of urine, becomes very offenſive, and it is hardly poſſible to keep the patient ſweet.

IV. OF IRRITABILITY IN THE BLADDER INDEPENDENT OF OBSTRUCTIONS TO THE PASSAGE OF THE URINE.

Another diſeaſe of the bladder, connected with the preſent ſubject, is, where that viſcus becomes extremely irritable, and will not allow of its uſual diſtention. The ſymptoms of this diſeaſe are very ſimilar to thoſe ariſing from obſtructions to the paſſage of the urine in the urethra, but with this difference, that in the preſent diſeaſe the urine flows readily, becauſe the urethra obeys the ſummons and relaxes; however, there is often conſiderable ſtraining, after the water is all voided, ariſing from the muſcular coat of the bladder ſtill continuing its contractions.

This irritability of the bladder often ariſes from local cauſes, as a ſtone, cancer, or tumors forming on the inſide, all which produce irritability of this viſcus. In ſuch caſes the ſtraining is violent, for the cauſe ſtill remains which continues to give the ſtimulus of ſomething to be expelled, and the bladder continues to contract till tired, as in the caſes of ſimple irritability; and then there is a reſpite for a time; but this reſpite is of ſhort duration, for the urine is ſoon accumulated.

This diſeaſe will in the end be fatal by producing an hectic fever.

V. OF

V. OF THE CURE OF SIMPLE IRRITABILITY OF THE BLADDER.

When the ſymptoms ariſe from irritability alone, and not from a ſtone, or any local affection, the nature of the complaint may not at firſt be ſo obvious; temporary relief may, however, be procured by opium, which is moſt effectual in ſlight and recent caſes; and if it be applied as near to the part as poſſible, its effects will be more evident; and therefore it may be given by clyſter as well as by the mouth.

I ſhould, however, be inclined to rely on a bliſter applied to the perinæum, or to the lower part of the ſmall of the back, or upper part of the ſacrum, if more convenient, than to any other method of cure.

In all caſes, where there is an irritation of the bladder, the patient ſhould never endeavour to retain his water beyond the inclination to make it. It hurts the bladder and increaſes its irritability; and indeed I am apt to think that this circumſtance, even in ſound parts, is often a prediſpoſing cauſe of diſeaſe in this viſcus and its appendage, the urethra; for I have known ſeveral caſes where it has brought on the ſpaſmodic ſtricture in the urethra, in ſound parts; and it is frequently an immediate cauſe of ſtrangury in thoſe who have either a ſtricture, or a diſpoſition to ſpaſms in thoſe parts.

A gentleman, in perfect health, from retaining his urine beyond the inclination, in the playhouſe, had all the ſymptoms of an irritable bladder brought on, which continued for ſeveral years, rendering him miſerable.

VI. OF A PARALYSIS OF THE ACCELERATORES URINÆ.

In many irritations of the bladder, the urethra not only relaxes directly on the ſtimulus to make water being felt in that viſcus, as has been deſcribed, but a paralyſis ſometimes takes place in the voluntary muſcles of thoſe parts, ſo that the will cannot command them to contract to hinder

the inconveniences that may attend an immediate evacuation of that fluid. If we attempt to ſtop the water, which is an act of the will, it is in vain; the acceleratores will not obey, and the water flows.

A bliſter applied to the perinæum will have conſiderable effects in removing this complaint.

CHAPTER

CHAPTER XI.

OF THE DISCHARGE OF THE NATURAL MUCUS OF THE GLANDS OF THE URETHRA.

THE ſmall glands of the urethra, and Cowper's glands, ſecrete a ſlimy mucus, ſimilar to the white of an egg not coagulated. This ſeldom appears externally, or flows from the urethra, but during the indulgence of laſcivious thoughts, and is ſeldom or never attended to, excepting by thoſe who are under apprehenſions either of a gonorrhœa coming on, or imagine the laſt infection is not gone off entirely, and are therefore kept in conſtant terror by this natural diſcharge. They often find it in ſuch quantity as to leave ſpots on the ſhirt, but without colour; and often after toying, the lips of the urethra are as it were glewed together by it, from its drying there, which appearances alarm the mind of the patient without cauſe. Although this is only a natural diſcharge, and is ſecreted, at ſuch times, under the ſame influence which naturally produces it, it muſt be owned, that it is commonly much increaſed in thoſe caſes of debility ariſing from the mind, which is probably not eaſily to be accounted for. It would ſeem that the conteſt between the mind and the body increaſes this ſecretion, for it cannot be conſidered as a diſeaſe of the parts.

I. OF THE DISCHARGE OF THE SECRETIONS OF THE PROSTATE GLAND AND VESICULÆ SEMINALES.

THIS complaint is imagined to be the conſequence of the venereal diſeaſe in the urethra; but how far this is really the caſe is not certain; though moſt probably it is not. It is a diſcharge of mucus by the urethra which generally comes away with the laſt drops of urine, eſpecially if the bladder

is

is irritable; and ſtill more at the time of being at ſtool, particularly if the patient be coſtive; for, under ſuch circumſtances, the ſtraining or actions of the muſcles of thoſe parts are more violent. It has generally been ſuppoſed that this diſcharge is ſemen; and the diſeaſe is called a ſeminal weakneſs: but it appears from many experiments and obſervations, that the diſcharge is undoubtedly not ſemen. It is only the mucus ſecreted either by the proſtate gland, by thoſe bags improperly called veſiculæ ſeminales, or both; and it may not be improper to give here the diſtinguiſhing marks between theſe two fluids. Firſt, we may obſerve the diſcharge in queſtion is not of the ſame colour with the ſemen, and is exactly of the colour of the mucus of the proſtate gland, and of thoſe bags. It has not the ſame ſmell, and indeed it hardly has any ſmell at all. The quantity, evacuated at one time, is often much more conſiderable than the evacuation of ſemen ever is; and it happens more frequently than it could poſſibly do were the diſcharge ſemen. It is a diſeaſe that often attacks old men, where one can hardly ſuppoſe much ſemen to be ſecreted; and we find that thoſe, who are affected with this diſeaſe, are no more deficient in the ſecretion and evacuation of the ſemen, in the natural way, than before they had the diſeaſe. If the mind be at eaſe, this ſhall take place immediately after a diſcharge of ſemen, as well as before, which could not be the caſe were it ſemen. Further, if thoſe that labour under this complaint, are not connected with women, they are ſubject to nocturnal diſcharges from the imagination, as perſons are who are perfectly ſound; and indeed moſt patients, when made acquainted with theſe circumſtances, become very ſenſible that it is not the ſemen.

It is not clear what the diſeaſed ſtate of the parts is upon which this diſcharge depends, whether there is a larger ſecretion of this mucus than natural, or whether it is entirely owing to a preternatural, uncommon action of thoſe parts; and if this laſt, why theſe parts ſhould be put into action when the bladder, rectum, and abdominal muſcles are thrown into action to expel their contents, is not eaſily explained. It is plain that the moſt violent actions of theſe parts are neceſſary to produce this evacuation; for it does not come with the firſt of the urine, nor, in general, with an eaſy ſtool.

As

As it was thought to be a ſeminal diſcharge, it was imagined to ariſe from a weakneſs in the organs of generation; and as frequent diſcharges of the ſemen in the natural way generally weaken, it was therefore imagined that this diſcharge muſt alſo weaken very conſiderably; and the imagination will operate ſo ſtrongly as to make the patients believe they really are weakened. Whether the cauſe of ſuch a diſcharge is capable of weakening, I will not pretend to ſay; but I believe that the diſcharge ſimply does not. Fear, and anxiety of mind may really weaken the patient. In the caſes I have ſeen of this kind, the mind has been more affected than the body.

From my own practice, I can hardly recommend any one medicine, or way of life, for removing this complaint. In one caſe I found conſiderable benefit from giving hemlock internally.

The idea, that has been formed of the diſeaſe, leads to the practice generally recommended, ſuch as giving ſtrengthening medicines of all kinds; but I never ſaw any good effects from any of them; and I ſhould rather be inclined to take up the ſoothing plan to prevent all violent actions. Keeping the body gently open will in ſome degree moderate the diſcharge, and probably may effect a cure in the end.

CHAPTER

CHAPTER XII.

OF IMPOTENCE.

THIS complaint is by many laid to the charge of Onaniſm at an early age; but how far this is juſt, it will in many caſes be difficult to determine; for, upon a ſtrict review of this ſubject, it appears to me to be by far too rare to originate from a practice ſo general.

How far the attributing to this practice ſuch a conſequence, is of public utility, I am doubtful, particularly as it is followed moſt commonly at an age when conſequences are not ſufficiently attended to, even in things leſs gratifying to the ſenſes; but this I can ſay with certainty, that many of thoſe, who are affected with the complaints in queſtion, are miſerable from this idea; and it is ſome conſolation for them to know that it is poſſible it may ariſe from other cauſes. I am clear in my own mind, that the books on this ſubject have done more harm than good.

In the caſes of this kind that have come under my care, although the perſons themſelves have been very ready to ſuppoſe that the diſeaſe has ariſen from the cauſe here alluded to; yet they did not appear to have given more into the practice than common; and in particular, the worſt caſe I have ever ſeen was where but very little of this practice had ever been uſed, much leſs than in common among boys.

Nothing hurts the mind of a man ſo much as the idea of inability to perform well the duty of the ſex. If his ſcrotum hangs low it makes him miſerable; he conceives immediately that he is to be rendered incapable of performing thoſe acts in which he prides himſelf moſt. It is certain, that the relaxation, or contraction of the ſcrotum, is in ſome degree a kind of ſign of the conſtitution; but it is of the conſtitution at large, not of thoſe parts in particular. Nurſes are ſo ſenſible of the contraction of that part being a ſign of health in the children under their care, that they take notice

of

of it. The relaxation of it in them cannot be ſuppoſed to ariſe from inability to perform thoſe acts at one time more than another. The face is one of the ſigns of the conſtitution, and has as much to do with thoſe peculiar acts as the ſcrotum. However we muſt allow that this part is much more lax than what we ſhould conceive was intended by Nature, even in young men who are well in health; but as this is very general, I rather ſuſpect that it ariſes from the circumſtances of the part being kept too warm, and always ſuſpended, the muſcles hardly ever being allowed to act, ſo that they have leſs force. How far it is the ſame in thoſe countries where the dreſs does not immediately ſuſpend thoſe parts, I have not been able to aſcertain. Warmth appears to be one cauſe; for we find that cold has generally an immediate effect; but this is perhaps owing to its not being accuſtomed to cold, which if it were, it might poſſibly become as regardleſs of it as it is of warmth. What the difference is in this part, in a cold and warm climate, all other circumſtances the ſame, I do not know. But whatever may be the cauſe, if it is really in common more lax than intended by Nature, it is of no conſequence as to the powers of generation. The teſticles will ſecrete whether kept high or low.

I. OF IMPOTENCE DEPENDING ON THE MIND.

As the parts of generation are not neceſſary for the exiſtence or ſupport of the individual, but have a reference to ſomething elſe in which the mind has a principal concern, a complete action in thoſe parts cannot take place without a perfect harmony of body and of mind; that is, there muſt be both a power of body, and diſpoſition of mind; for the mind is ſubject to a thouſand caprices, which affect the actions of theſe parts.

Copulation is an act of the body, the ſpring of which is in the mind; but it is not volition; and according to the ſtate of the mind ſo is the act performed. To perform this act well, the body ſhould be in health, and the mind ſhould be perfectly confident of the powers of the body; the mind ſhould be in a ſtate entirely diſengaged from every thing elſe; it ſhould have no difficulties, no fears, no apprehenſions; not even an anxiety to perform

the act well; for even this anxiety is a ſtate of mind different from what ſhould prevail; there ſhould not be even a fear that the mind itſelf may find a difficulty at the time the act ſhould be performed. Perhaps no function of the machine depends ſo much upon the ſtate of the mind as this.

The will, and reaſoning faculty, have nothing to do with this power; they are only employed in the act, ſo far as voluntary parts are made uſe of; and if they ever interfere, which they ſometimes do, it often produces another ſtate of mind which deſtroys that which is proper for the performance of the act; it produces a deſire, a wiſh, a hope, which are all only diffidence and uncertainty, and create in the mind the idea of a poſſibility of the want of ſucceſs, which deſtroys the proper ſtate of mind, or neceſſary confidence.

There is perhaps no act in which a man feels himſelf more intereſted, or is more anxious to perform well, his pride being engaged in ſome degree, which, if within certain bounds, would produce a degree of perfection in an act depending upon the will, or an act in voluntary parts; but when it produces a ſtate of mind contrary to that ſtate, on which the perfection of the act depends, a failure muſt be the conſequence.

The body is not only rendered incapable of performing this act, by the mind being under the above influence, but alſo by the mind being perfectly confident of its power, but conſcious of an impropriety in performing it; this, in many caſes, produces a ſtate of mind which ſhall take away all power. The ſtate of a man's mind, reſpecting his ſiſter, takes away all power. A conſcientious man has been known to loſe his powers on finding the woman, he was going to be connected with, unexpectedly a virgin.

Shedding tears ariſes entirely from the ſtate of the mind, although not ſo much a compound action as the act in queſtion; for none are ſo weak in body that they cannot ſhed tears; it is not ſo much a compound action of the mind and ſtrength of body, joined, as the other act is; yet if we are afraid of ſhedding tears, or are deſirous of doing it, and that anxiety is kept up through the whole of an affecting ſcene, we certainly ſhall not ſhed tears, or at leaſt not ſo freely as would have happened from our natural feelings.

From

From this account of the neceſſity of having the mind independent, reſpecting the act, we muſt ſee that it may very often happen that the ſtate of mind will be ſuch as not to allow the animal to exert its natural powers; and every failure increaſes the evil. We muſt alſo ſee from this ſtate of the caſe, that this act muſt be often interrupted; and the true cauſe of this interruption not being known, it will be laid to the charge of the body, or want of powers. As theſe caſes do not ariſe from real inability, they are to be carefully diſtinguiſhed from ſuch as do; and perhaps the only way to diſtinguiſh them is, to examine into the ſtate of mind reſpecting this act. So trifling often is the circumſtance which ſhall produce this inability, depending on the mind, that the very deſire to pleaſe ſhall have that effect, as in making the woman the ſole object to be gratified.

Caſes of this kind, we ſee every day; one of which I ſhall relate as an illuſtration of this ſubject, and alſo of the method of cure.

A gentleman told me, that he had loſt his virility. After above an hour's inveſtigation of the caſe, I made out the following facts: that he had, at unneceſſary times, ſtrong erections, which ſhowed that he had naturally this power; that the erections were accompanied with deſire, which are all the natural powers wanted; but that there was ſtill a defect ſomewhere, which I ſuppoſed to be from the mind; I inquired, if all women were alike to him, his anſwer was, no; ſome women he could have connection with, as well as ever. This brought the defect, whatever it was, into a ſmaller compaſs; and it appeared there was but one woman that produced this inability, and that it aroſe from a deſire to perform the act with this woman well; which deſire produced in the mind a doubt, or fear of the want of ſucceſs, which was the cauſe of the inability of performing the act. As this aroſe entirely from the ſtate of the mind, produced by a particular circumſtance, the mind was to be applied to for the cure; and I told him that he might be cured, if he could perfectly rely on his own power of ſelf-denial. When I explained what I meant, he told me that he could depend upon every act of his will, or reſolution; I then told him, if he had a perfect confidence in himſelf in that reſpect, that he was to go to bed to this woman, but firſt promiſe to himſelf, that he would not have

any connection with her for ſix nights, let his inclinations and powers be what they would; which he engaged to do; and alſo to let me know the reſult. About a fortnight after he told me, that this reſolution had produced ſuch a total alteration in the ſtate of his mind, that the power ſoon took place; for inſtead of going to bed with the fear of inability, he went with fears that he ſhould be poſſeſſed with two much deſire, too much power, ſo as to become uneaſy to him, which really happened; for he would have been happy to have ſhortened the time, and when he had once broke the ſpell, the mind and powers went on together; and his mind never returned to its former ſtate.

II. OF IMPOTENCE FROM A WANT OF PROPER CORRESPONDENCE BETWEEN THE ACTIONS OF THE DIFFERENT ORGANS.

I lately obſerved, when treating of the diſeaſes of the urethra, and bladder, that every organ in an animal body, without exception, was made up of different parts, whoſe functions, or actions, were totally different from each other, although all tending to produce one ultimate effect. In all ſuch organs, when perfect, there is a ſucceſſion of motions, one naturally ariſing out of the other, which in the end produces the ultimate effect; and an irregularity alone, in theſe actions, will conſtitute diſeaſe, at leaſt will produce very diſagreeable effects, and often totally fruſtrate the final intention of the organ. I come now to apply this principle to the actions of the teſticle and the penis; for we find that an irregularity in the actions of theſe parts ſometimes happens in men, producing impotence: and ſomething ſimilar, probably, may be one cauſe of barrenneſs in women.

In men, the parts ſubſervient to generation may be divided into two, the eſſential, and the acceſſory. The teſticles are the eſſential; the penis, &c. the acceſſory. As this diviſion ariſes from their uſes or actions in health, which exactly correſpond with one another; a want of exactneſs in the correſpondence, or ſuſceptibility of thoſe actions, may alſo be divided into

into two: where the actions are reverſed, the acceſſory taking place without the firſt or eſſential, as in erections of the penis, where neither the mind, nor the teſticles, are ſtimulated to action; and the ſecond is where the teſticle performs the action of ſecretion too readily for the penis, which has not a correſponding erection. The firſt is called priapiſm; and the ſecond is what ought to be called ſeminal weakneſs.

The mind has conſiderable effect on the correſpondence of the actions of theſe two parts; but it would appear in many inſtances, that erections of the penis depend more on the ſtate of the mind, than what the ſecretion of the ſemen does; for many have the ſecretion, but not the erection; but in ſuch, the want of erection appears to be owing to the mind only.

Priapiſm often ariſes ſpontaneouſly, and often from viſible irritation of the penis, ſuch as the venereal gonorrhœa, eſpecially when violent. The ſenſation of ſuch erections is rather uneaſy than pleaſant, nor is the ſenſation of the glans at the time ſimilar to that ariſing from the erections of deſire, but more like to the ſenſation of the parts immediately after coition. Such as ariſe ſpontaneouſly are of more ſerious conſequence than thoſe from inflammation, as they proceed, probably, from cauſes not curable in themſelves, or by any known methods.

The priapiſm ariſing from inflammation of the parts, as in a gonorrhœa, is attended with nearly the ſame ſymptoms; but generally the ſenſation is that of pain, proceeding from the inflammation of the parts. It may be obſerved, that what is ſaid of priapiſm, is only applicable to it, when a diſeaſe in itſelf, and not as a ſymptom of other diſeaſes, which is frequently the caſe.

The common practice in the cure of this complaint is to order all the nervous and ſtrengthening medicines, ſuch as bark, valerian, muſk, camphor, and alſo the cold bath. I have ſeen good effects from the cold bath; but ſometimes it does not agree with the conſtitution, in which caſes I have found the warm bath of ſervice. Opium appears to be a ſpecific in many caſes; from which circumſtance I ſhould be apt, upon the whole, to try a ſoothing plan.

Seminal

Seminal weakneſs, or a ſecretion and emiſſion of the ſemen without erections, is the reverſe of a priapiſm, and is by much the worſt diſeaſe of the two. There is great variety in the degrees of this diſeaſe, there being all the gradations from the exact correſpondence of the actions of all the parts to the teſticles acting alone; in every caſe of the diſeaſe there is too quick a ſecretion and evacuation of the ſemen. Like to the priapiſm, it does not ariſe from deſires and abilities, although when mild it is attended with both, but not in a due proportion; a very ſlight deſire often producing the full effect. The ſecretion of the ſemen ſhall be ſo quick that ſimple thought, or even toying ſhall make it flow.

Dreams have produced this evacuation repeatedly in the ſame night; and even when the dreams have been ſo ſlight, that there has been no conſciouſneſs of them when the ſleep has been broken by the act of emiſſion. I have known caſes, where the teſticles have been ſo ready to ſecrete, that the leaſt friction on the glans has produced an emiſſion: I have known the ſimple action of walking, or riding, produce this effect, and that repeatedly, in a very ſhort ſpace of time.

A young man, about four or five and twenty years of age, not ſo much given to venery as moſt young men, had theſe laſt-mentioned complaints upon him. Three or four times in the night he would emit; and if he walked faſt, or rode on horſeback, the ſame thing would happen. He could ſcarcely have connection with a woman, before he emitted, and in the emiſſion there was hardly any ſpaſm. He tried every ſuppoſed ſtrengthening medicine, as alſo the cold bath, and ſea-bathing, but with no effect. By taking twenty drops of laudanum, on going to bed, he prevented the night emiſſions; and by taking the ſame quantity in the morning, he could walk or ride, without the before-mentioned inconvenience. I directed this practice to be continued for ſome time, although the diſeaſe did not return, that the parts might be accuſtomed to this healthy ſtate of action; and I have reaſon to believe the gentleman is now well. It was found neceſſary, as the conſtitution became more habituated to the opiate, to increaſe the doſe of it.

The ſpaſms, upon the evacuation of the ſemen, in ſuch caſes are extremely ſlight, and a repetition of them ſoon takes place; the firſt emiſſion

not

not preventing a ſecond; the conſtitution being all the time but little affected.* When the teſticles act alone, without the acceſſory parts taking up the neceſſary and natural conſequent action, it is ſtill a more melancholy diſeaſe; for the ſecretion ariſes from no viſible, or ſenſible cauſe, and does not give any viſible or ſenſible effect, but runs off ſimilar to involuntary ſtools, or urine. It has been obſerved that the ſemen is more fluid than natural in ſome of theſe caſes.

There is great variety in the diſeaſed actions of theſe parts, of which the following caſe may be conſidered as an example.

A gentleman has had a ſtricture in the urethra for many years, for which he has frequently uſed a bougie, but of late has neglected it. He has had no connection with women for a conſiderable time, being afraid of the conſequences. He has often in his ſleep involuntary emiſſions, which generally awake him at the paroxyſm; but what ſurpriſes him moſt is, that often he has ſuch, without any ſemen paſſing forwards through the penis, which makes him think that at thoſe times it goes backwards into the bladder. This is not always the caſe, for at other times the ſemen paſſes forwards. At the time the ſemen ſeems to paſs into the bladder, he has the erection, the dream, and is awaked with the ſame mode of action, the ſame ſenſation, and the ſame pleaſure, as when it paſſes through the urethra, whether dreaming or waking. My opinion is, that the ſame irritation takes place in the bulb of the urethra without the ſemen, that takes place there when the ſemen enters, in conſequence of all the natural preparatory ſteps, whereby the very ſame actions are excited as if it came into the paſſage; from which one would ſuppoſe that either ſemen is not ſecreted, or if it be, that a retrograde motion takes place in the actions of the acceleratores urinæ; but if the firſt be the caſe, then we may ſuppoſe that in the natural ſtate the actions of thoſe muſcles do not ariſe ſimply from the ſtimulus of the ſemen in the part; but from their action being a termination of a

* It is to be conſidered that the conſtitution is commonly affected by the ſpaſms only, and in proportion to their violence, independent of the ſecretion and evacuation of the ſemen. But in ſome caſes even the erection going off without the ſpaſms on the emiſſion, ſhall produce the ſame debility as if they had taken place.

preceding

preceding one making part of a ſeries of actions. Thus they may depend upon the friction, or the imagination of a friction on the penis, the teſticles not doing their part, and the ſpaſm in ſuch caſes ariſing from the friction and not from the ſecretion.

In many of thoſe caſes of irregularity, when the erection is not ſtrong, it ſhall go off without the emiſſion; and at other times an emiſſion ſhall happen almoſt without an erection; but theſe ariſe not from debility, but affections of the mind.

In many of the preceding caſes, waſhing the penis, ſcrotum, and perinæum with cold water, is often of ſervice; and to render it colder than we find it in ſome ſeaſons of the year, common ſalt may be added to it, and the parts waſhed when the ſalt is almoſt diſſolved.

CHAPTER

CHAPTER XIII.

OF THE DECAY OF THE TESTICLE.

IT would appear from ſome circumſtances, that the parts of generation are not to be conſidered as neceſſary parts of the animal machine, but only as parts ſuperadded for particular purpoſes; and therefore only neceſſary when thoſe particular purpoſes are to be anſwered; for we may obſerve, that they are later of coming to maturity than any other parts, and are more liable to decay. Thus far in their natural properties they are different from moſt other parts of our body, the teeth only excepted, which are ſimilar in ſome of thoſe circumſtances.

The teſticles appear to be more ſubject to ſpontaneous diſeaſe than any other part of the body: but what is the moſt ſingular thing of all, is the waſting of thoſe bodies. One or both teſticles ſhall wholly diſappear, like to the thymus gland, or membrana pupillaris, &c. in the infant. This we do not find in any parts of the body which are eſſential to its œconomy; excepting the parts are of no further uſe, and might become hurtful in the body, as in the inſtance of the membrana pupillaris; but the teſticles do not undergo this change, as if in conſequence of an original property ſtamped upon them, as is the caſe of the thymus gland, whenever the age of the perſon is ſuch as to render them uſeleſs; but are liable to it at any age, and therefore the diſpoſition is in the teſticles themſelves, independent of any connection with the animal œconomy. An arm, or leg may loſe its action, and may waſte in part, but never wholly.

Teſticles have been known to waſte in caſes of rupture, probably from the conſtant preſſure of the inteſtine. Mr. Pott has given us caſes of this kind. I have ſeen in the hydrocele the teſticle almoſt waſted to nothing, probably from the compreſſion of the water; but in all theſe the cauſes of waſting are obvious, and would probably produce ſimilar effects in other parts of the body under the ſame circumſtances; but a teſticle without any

previous diſeaſe waſtes wholly; or at other times it inflames, either ſpontaneouſly, or from ſympathy with the urethra, becomes large, and then begins to ſubſide, as in the reſolution of common inflammation of the body, but does not ſtop at the former ſize, but continues to decay till it wholly diſappears. The following caſes are inſtances of this.

Caſe I. A gentleman about nine years ago had a gonorrhœa, with a bubo, which ſuppurated. A ſwelling of one of the teſticles came on, for which he uſed the common methods of producing reſolution, and ſeemingly with ſucceſs. All the other ſymptoms being removed, he thought himſelf quite well; but ſome time after, he found that the teſticle, which had been ſwelled, was become rather ſmaller than the other, which made him now pay attention to it; this decreaſe continued till it waſted entirely. For ſome years paſt there has been no appearance of a teſticle. He is not in the leaſt different in inclination, or powers, from what he was before.

Caſe II, communicated by Mr. Nanfan. "A gentleman, aged about eighteen, who never had any venereal complaint, has had two different attacks of the ſame nature, one in each teſticle. February 3, 1776, after ſkating a few hours, without having to his knowledge received any injury from it, he was ſeized with a violent pain and inflammation of the left teſticle, which in a few days increaſed much in ſize. A ſurgeon being ſent for, followed the uſual treatment in ſuch caſes of inflammation. In about ſix weeks the inflammation and ſwelling gradually ſubſided, ſome hardneſs only remaining. A mercurial plaiſter was now applied, which, after being worn for ſome time, was left off. The teſticle ever ſince has continued gradually to decreaſe, and is no larger than a horſebean; indeed the body of the teſticle is quite decayed, nothing remaining but what ſeems part of the epididymis. It appears to have no ſenſe of pain, except when preſſed, and is very hard and uneven on its ſurface. The ſpermatic chord is not in the leaſt affected. October 20, 1777, he was ſeized in the ſame manner in the right teſticle, without any apparent cauſe, whereupon I was applied to. He was immediately bled, took an opening mixture, after that a ſaline mixture with tartar emetic; and a fomentation and embrocation of ſpiritus mindereri, and ſpiritus vini, was uſed. On the 27th, a cataplaſm was applied of linſeed meal and aqua vegeto-mineralis. This treatment was perſiſted

ſiſted in till about the middle of November. The inflammation went off, and the teſticle ſeemed much in the natural ſtate. On December 19, I was applied to again; it ſeemed to be growing hard, and decreaſing in ſize, much in the ſame manner as the other had done, which made him very unhappy. I ordered him ſome pills with calomel and tartar emetic, in hopes of increaſing the ſecretion of the glands in general, and making ſome change in the teſticle. At firſt this method ſeemed to be of ſervice, but ſoon loſt its effects, and the teſticle began to decreaſe juſt as the other did." Mr. Adair and Mr. Pott were conſulted with me, but nothing could be thought of that could give any hopes of ſucceſs. I adviſed him to employ the parts in their natural uſes, as much as inclination led him; but all was to no purpoſe, the teſticle continued to decreaſe till not a veſtige was left.

Caſe III, communicated by Dr. Cothom of Worceſter. " A young, man, aged ſixteen, was ſuddenly ſeized with great coldneſs and ſhivering, attended with frequent rigors. During this paroxyſm, which continued three hours, his pulſe was ſmall and contracted, and ſo exceedingly quick that the ſtrokes of the artery were with difficulty counted. This period was ſucceeded by an intenſe heat, and a ſtrong, hard, full pulſe, on which account he was copiouſly bled; a doſe of cooling phyſic was immediately adminiſtered, and a clyſter thrown up to promote its more ſpeedy effects. In the evening the bleeding was repeated. All this day he complained of excruciating pain in his loins, and the ſide of his belly deſcending down into the ſcrotum. On examining the part affected, I ſaw an appearance of inflammation in the groin of the left ſide, and a great tenſion about the ring of the abdominal muſcles, with an enlargement of the teſticles. Theſe parts were now ordered to be fomented with a diſcutient fotus ſtrongly impregnated with crude ſal ammoniac, and to be bathed with ſpiritus mindereri, and ſpiritus volat. aromat. before the application of each ſtupe; and he was directed to take ſix grains of the pulv. antimonialis, with fifteen grains of nitre every three hours; his food to be thin gruel, with fruit and lemon-juice, and his drink barley-water with ſugar and nitre. Notwithſtanding this antiphlogiſtic plan of frequent cooling phyſic, anodynes, three

emetics, and thirteen blood-lettings, the fever continued, and the pain, inflammation and tumor increaſed till the eighth day, including the firſt day of ſeizure; when ſeeing no hope of diſcuſſing the tumor, the teſticle being nearly as large as a child's head, I attempted by emollient fotuſes, and maturating cataplaſms, to bring it to ſuppuration. On the 10th, a fluctuation was perceptible; and on the 12th, much more ſo, the ſcrotum having then put on a livid appearance. I uſed every poſſible argument for permiſſion to open it, but he being now quite eaſy, would not admit it. On the 15th, the patient was again attacked with rigors, coldneſs and ſhivering, ſucceeded by a great feveriſh heat, which ſoon terminated in a profuſe ſweat, yet no pain attended this paroxyſm. In the evening, however, the tumor was ſo prominent that I was of opinion it would open ſpontaneouſly before morning, when I hoped to obtain his conſent to enlarge the aperture; but this not happening, and all intreaties, relating to the neceſſity of an inciſion, proving ineffectual, I contented myſelf with giving the bark with elixir of vitriol. From this time, after every paroxyſm of fever, the teſticle was obſerved to decreaſe. Not being permitted to make an inciſion, and his ſtrength and appetite continuing good, I began to entertain hopes of ſucceſs without it, and adviſed him to perſiſt in the uſe of the tonic and antiſeptic plan, with the addition of ſtupes wet with the decoction of bark, to be conſtantly applied; by which means, at the end of thirty days from the firſt ſeizure, the pus was totally abſorbed. The teſticle then appeared to be of the ſize of an hen's egg, and was as hard as a ſcirrhus. I directed it to be rubbed, night and morning, with equal parts of the unguent. mercur. fort. and liniment. volat. camphorat. and ordered, internally, ſome mercurial alteratives, with a decoction of bark. By theſe aids his night ſweats, and every other diſagreeable ſymptom, gradually abated; he gathered ſtrength, fleſh and ſpirits, very faſt, and the diſeaſed teſticle went on conſtantly decreaſing, though very ſlowly, for near twelve months; at the expiration of which time there was no other appearance of it than a confuſion of looſe fibres, obvious to the feeling, in the upper part of the ſcrotum. About a month ago the patient conſented to my examining it. Of the teſticle there was not the leaſt veſtige, neither could I perceive the tunica vaginalis

vaginalis on that ſide in the groin; but upon the os pubis, and a little under it, I could embrace with my fingers and thumb the chord, and diſtinguiſh the veſſels, which were without the leaſt degree of hardneſs or ſcirrhoſity; and if I preſſed one in particular, I gave him exquiſite pain for a moment. He is in perfect health, of a ſtrong, robuſt conſtitution, and has fine healthy children; the only change which he has perceived in the conſtitution has been a propenſity to grow fat, which neither temperance, nor violent exerciſe on horſeback, daily, with little reſt, will prevent.

PART

PART IV.

CHAPTER I.

OF CHANCRE.

I Have been hitherto ſpeaking of the effects of this poiſon, when applied to a ſecreting ſurface and without a cuticle; of the intention of Nature in producing theſe effects; and of all the conſequences, both real and ſuppoſed. I now mean to explain its effects when applied to a ſurface that is covered with a common cuticle, as the common ſkin of the body, which on ſuch a ſurface will be found to be very different from thoſe I have been deſcribing. But I may be allowed here to remark, that the penis, the common ſeat of a chancre, is, like every part of the body, liable to diſeaſes of the ulcerative kind; and from ſome circumſtances, rather more ſo than other parts; for if attention is not paid to cleanlineſs, we have often excoriations, or ſuperficial ulcers, from that cauſe; alſo, like almoſt every other part that has been injured, theſe parts, when once they have ſuffered from the venereal diſeaſe, are very liable to ulcerate anew. Since then this part is not exempted from the common diſeaſes of the body, and as every diſeaſe in this part is ſuſpected to be venereal, great attention is to be paid in forming our judgment of ulcers here.

Venereal ulcers commonly have one character, which however is not entirely peculiar to them, for many ſores that have no diſpoſition to heal, (which is the caſe with a chancre) have ſo far the ſame character. A chancre has commonly a thickened baſe, and although in ſome the common inflammation ſpreads much further, yet the ſpecific is confined to this baſe. The future, or conſequent ulcers are commonly eaſily diſtinguiſhed from the original, or venereal, which will be deſcribed hereafter.

It

It is an invariable effect, that when any part of an animal is irritated to a certain degree, it inflames and forms matter, the intention of which is to remove the irritating cauſe. This proceſs is eaſily effected when it is on a ſurface whoſe nature is to ſecrete; but when on a ſurface whoſe nature is not to ſecrete, it then becomes more difficult, for another proceſs muſt be ſet up, which is ulceration. This is not only the caſe in common irritations, but alſo in ſpecific irritations from morbid poiſons, as the venereal diſeaſe and ſmallpox. The variolous matter, as well as the venereal, produces ulcers on the ſkin; but when it affects ſecreting ſurfaces, a diſeaſed ſecretion is the conſequence; and this is different in different parts; on the tongue, inſide of the mouth, uvula and tonſils, the coagulable lymph is thrown out in form of ſloughs, ſomewhat ſimilar to the putrid ſore throat; but in the fauces and all down the œſophagus, a thickiſh fluid in appearance like matter is ſecreted. When the irritation is applied to a ſurface whoſe cuticle is thin, and where there is a ſecretion naturally, as the glans penis, or inſide of the prepuce, there it ſometimes only irritates, ſo as to produce a diſeaſed ſecretion, as was deſcribed; but this is not always the effect of ſuch irritation on ſuch ſurfaces. They are often irritated to ulceration, and produce a chancre.

The poiſon has in general either no diſpoſition, or not ſufficient powers to bliſter or excoriate the common ſkin; for if it did, the ſymptoms moſt probably would be at firſt nearly the ſame, if not exactly ſo, with a gonorrhœa; that is a diſcharge of matter from a ſurface, without a cuticle, newly inflamed; for it is reaſonable to ſuppoſe, that the poiſon would produce on that excoriated ſurface a ſecretion of matter, which would be at firſt a gonorrhœa, and which very probably would afterwards fall into the ſecond mode of action or ulceration, and then become a chancre.

There are three ways in which chancres are produced; firſt, by the poiſon being inſerted into a wound; ſecondly, by being applied to a nonſecreting ſurface; and thirdly, by being applied to a common ſore. To whichever of theſe three different ſurfaces it is applied, the pus produces its ſpecific inflammation and ulceration, attended with a ſecretion of pus. The matter, produced in conſequence of thoſe different modes of application, is of the ſame nature with the matter applied, becauſe the irritations are the ſame in both.

The

The poiſon much more readily contaminates, if it is applied to a freſh wound, than to an ulcer, in this reſembling the inoculation of the ſmall-pox. Whether there are any parts of the ſkin, or any other part of the body, more ſuſceptible of this irritation than others, in conſequence of local application, is not yet aſcertained.

This form of the diſeaſe, like the firſt, or gonorrhœa, is generally caught on the parts of generation, in conſequence of a connection between the ſexes; but any part of the body may be affected by the application of venereal matter, eſpecially if the cuticle is thin.

I have ſeen a chancre on the prolabium, as broad as a ſixpence, caught the perſon did not know how.* The penis, and particularly the prepuce, being the parts moſt commonly affected by this form of the diſeaſe, are ſo conſtructed as to ſuffer much from it, eſpecially when they are very ſuſceptible of ſuch irritation; for the conſtruction alone produces many inconveniences, beſides conſiderable pain, while under the diſeaſe, and in general retards the cure.

The chancre is not ſo frequent an effect of the poiſon as the gonorrhœa; and I think very good reaſons may be aſſigned for it, although there are more modes than one of catching it, as I juſt now mentioned; but the parts in two of them, to wit, the wound, and the ſore, are ſeldom in the way of being infected; therefore when it is caught it is commonly by the ſame mode of application with that of the gonorrhœa; but as the cuticle cannot be affected by this poiſon, this covering acting as a guard to the cutis, it is often prevented from coming in contact with it; and indeed it is almoſt ſurpriſing that the cutis ſhould be affected by it, where it has ſuch a covering, excepting about the glans, the inſide of the prepuce, or other parts of the body, where this covering is thin. The proportion which the caſes of gonorrhœa bear to thoſe of chancre is as four or five to one.

When it is caught in men, it is generally upon the frænum, glans penis, prepuce, or upon the common ſkin of the body of the penis; and ſometimes on the forepart of the ſcrotum; but I think moſt frequently on the

* That this ſore was a chancre I made no doubt, for beſides its diſeaſed appearance, he had a bubo forming in one of the glands under the lower jaw, on the ſame ſide.

It is moſt probable that his own fingers were the conveyers.

frænum, and in the angle between the penis and glans. Its affecting theſe parts ariſes from the manner in which it is caught, and not from any ſpecific tendency in theſe parts to catch it more than others; and its affecting the frænum, &c. more frequently than the other parts of the penis, ariſes from the external form of this part, which is irregular, and allows the venereal matter to lie undiſturbed in the chinks; by which means it has time to irritate, and inflame the parts, and to produce the ſuppurative, and ulcerative inflammation in them. But as this matter is eaſily rubbed off from prominent parts, by every thing that touches them, it is a reaſon why ſuch parts in general ſo often eſcape this diſeaſe.

The diſtance of time between its application, and its effects upon the part is uncertain; but, upon the whole, it is rather longer in appearing than the gonorrhœa; however this depends in ſome meaſure on the nature of the parts affected. If it be the frænum, or the termination of the prepuce into the glans, that is affected, the diſeaſe will in general appear earlier; theſe parts being more eaſily affected than either the glans, common ſkin of the penis, or ſcrotum; for in ſome caſes where both the glans and prepuce were contaminated from the ſame application of the poiſon, it has appeared earlier on the prepuce.

I have known caſes where the chancres have appeared twenty-four hours after the application of the matter; and others where it has been ſeven weeks. A remarkable caſe of this kind was in a gentleman who had not touched a woman for ſeven weeks, when a chancre appeared. That this was a venereal chancre was proved, by his having had the lues venerea from it, and being under a neceſſity of taking mercury. An officer in the army had a chancre which appeared two months after he had had any connection with a woman. After the laſt connection he marched above an hundred miles, when the chancre broke out, and only gave way to mercury.

This, like moſt other inflammations which terminate in ulcers, begins firſt with an itching in the part; if it is the glands that is inflamed, generally a ſmall pimple appears full of matter, without much hardneſs, or ſeeming inflammation, and with very little tumefaction, the glans not being ſo readily tumefied from inflammation as many parts are, eſpecially the prepuce; nor are the chancres attended with ſo much pain or inconvenience

as

as thoſe on the prepuce; but if upon the frænum, and more eſpecially the prepuce, an inflammation more conſiderable than the former ſoon follows, or at leaſt the effects of the inflammation are more extenſive and viſible. Thoſe parts being compoſed of very looſe cellular membrane, afford a ready paſſage for the extravaſated juices; continued ſympathy alſo more readily takes place in them. The itching is gradually changed to pain; the ſurface of the prepuce is in ſome caſes excoriated, and afterwards ulcerates: in others a ſmall pimple, or abſceſs appears, as on the glans, which forms an ulcer. A thickening of the part comes on, which at firſt, and while of the true venereal kind, is very circumſcribed, not diffuſing itſelf gradually and imperceptibly into the ſurrounding parts, but terminating rather abruptly. Its baſe is hard, and the edges a little prominent. When it begins on the frænum, or near it, that part is very commonly wholly deſtroyed, or a hole is often ulcerated through it, which proves rather inconvenient in the cure, and in general it had better, in ſuch caſes, be divided at firſt.

If the venereal poiſon ſhould be applied to the ſkin, where the cuticle is more denſe than that of the glans penis, or frænum, ſuch as that upon the body of the penis, or forepart of the ſcrotum, (parts which are very much expoſed to the application of this matter) then it generally appears firſt in a pimple, which is commonly allowed to ſcab, owing to its being expoſed to evaporation. This ſcab is generally rubbed off, or puſhed off, and one larger than the firſt forms. I think there is leſs inflammation attending theſe laſt than thoſe on the frænum and prepuce, but more than thoſe upon the glans.

When the diſeaſe is allowed to go on, ſo as to partake of the inflammation peculiar to the habit, it becomes in many inſtances more diffuſed, and is often carried ſo far, as to produce diſagreeable ſymptoms, as phymoſis, and ſometimes paraphymoſis, greatly retarding the cure; but ſtill there is a hardneſs peculiar to this poiſon, ſurrounding the ſores, eſpecially thoſe upon the prepuce.

When theſe ulcers are forming, and after they are formed, or in the ſtate of inflammation, it is no uncommon thing for the urethra to ſympathiſe with them, and give a tickling pain, eſpecially in making water; but whether or not there is ever a diſcharge in the urethra from ſuch a cauſe I will

not determine; but if a diſcharge never takes place but when the diſeaſe really attacks the urethra, it would make us ſuppoſe that this ſympathy is not really inflammatory; or if it is carried ſo far as to produce inflammation, yet that it is not of the ſpecific kind. However it is poſſible in thoſe caſes where there is a gonorrhœa preceded by a chancre, that this gonorrhœa may ariſe from ſympathy, and is not a diſeaſe proceeding from the original contamination, nor from the matter of the chancre. That the ſenſation in the urethra, in thoſe inſtances where there is no diſcharge, is from ſympathy, and not from the urethra being attacked with the diſeaſe at the time that the matter laid the ground-work for the chancre, is evident from the following obſervation. I have ſeen it happen more than once, when the ſeat of the chancre had broke out a ſecond time, and where no new or freſh infection had been caught, that the patient complained of the ſame tickling or ſlight pain in the urethra before any diſcharge had taken place in the beginning ulcerations. From the ſame connection of parts I have ſeen a chancre coming upon the glans abſolutely cure both a gleet and an irritation all along the paſſage of the urethra. So great was the previous irritation in this caſe, that I ſuſpected a ſtricture; but on paſſing a bougie found none.

In conſequence of the urethra ſympathiſing with the chancre, the teſticles and ſcrotum will further ſympathiſe with the urethra, and become affected. I have ſeen this ſympathy extend over the whole pubes, and ſo ſtrong that touching the hairs gently on the pubes has given diſagreeable ſenſations, and even pain.

In ſpeaking of the local, or immediate effects of the venereal diſeaſe, I mentioned that they were ſeldom wholly ſpecific, and that they partook both of the ſpecific and the conſtitutional inflammation; and therefore it is always very neceſſary to pay ſome attention to the manner in which chancres firſt appear, and alſo to their progreſs; for they often explain the nature of the conſtitution at the time. If the inflammation ſpreads faſt, and conſiderably, it ſhows a conſtitution more diſpoſed to inflammation than natural. If the pain is great, it ſhows a ſtrong diſpoſition to irritation. It alſo ſometimes happens that they begin very early to form ſloughs; when this is the caſe they have a ſtrong tendency to mortification.

Theſe

Theſe additional ſymptoms mark the conſtitution and direct the future mode of treatment.

When there is a conſiderable loſs of ſubſtance, either from ſloughing or ulceration, a profuſe bleeding is no uncommon circumſtance, more eſpecially if the ulcer is on the glans; for it would appear that the adheſive inflammation does not ſufficiently take place there to unite the veins of the glans ſo as to prevent their cavity from being expoſed, and the blood is allowed to eſcape from what is called the corpus ſpongioſum urethræ. The ulcers, or ſloughs, often go as deep as the corpus cavernoſum penis, where the ſame thing happens.

I. OF THE PHYMOSIS AND PARAPHYMOSIS.

These diſeaſes ariſe from a thickening of the cellular membrane of the prepuce, in conſequence of an irritation capable of producing conſiderable and diffuſed inflammation, which, when it does happen, is generally in conſequence of a chancre in this part. This irritation, however, and inflammation, ſometimes attacks the prepuce, even when the diſeaſe is in the form of what I ſuſpect to be a gonorrhœa of the glans and prepuce,* ſometimes even in the common gonorrhœa, but moſt frequently of all from a chancre in the prepuce. When this diſeaſe or tumefaction takes place in conſequence of a chancre, I ſuſpect that there is an irritable diſpoſition in the habit; for it is plain there is more than the ſpecific action, the inflammation extending beyond the ſpecific diſtance.

It may be obſerved here, that the prepuce is no more than a doubling of the ſkin of the penis when not erected, for then it becomes too large for the penis, by which proviſion the glans is covered and preſerved when not neceſſary to be uſed, whereby its feelings are probably more acute. When the penis becomes erect it in general fills the whole ſkin, by which the doubling forming the prepuce in the non-erect ſtate is unfolded, and is employed in covering the body of the penis.

* See page 41, where this gonorrhœa is mentioned.

The

The diſeaſes called phymoſis and paraphymoſis, being a thickening of the cellular membrane of this part, they will commonly be in proportion to the inflammation and diſtenſibility of the cellular membrane of the part. The inflammation often runs high, and is frequently of the eriſypelatous kind; beſides, in ſuch parts where the cellular membrane is ſo very looſe, the tumefaction is conſiderable, and the end of the prepuce being a depending part the ſerum is accumulated in it, which in many inflammations is allowed to paſs from the inflamed to ſome more depending part, as in an inflammation of the leg or thigh, where the foot commonly ſwells or becomes œdematous in conſequence of the deſcent of the ſerum extravaſated above.

A natural contraction of the aperture of the prepuce is very common, and ſo ſtrong in ſome, that thoſe under ſuch conſtruction of parts have a natural and conſtant phymoſis. Such a ſtate of parts is often attended with chancres, producing very great inconveniences in the time of the cure; and in thoſe caſes of conſiderable diffuſed inflammation, a diſeaſed phymoſis, ſimilar to the other, unavoidably follows; and, whether diſeaſed or natural, it may produce the paraphymoſis ſimply by the prepuce being brought back upon the penis; for this tight part acting as a ligature round the body of the penis, behind the glans, retards the circulation beyond the ligature, producing an œdematous inflammation on the inverted part of the prepuce. When the paraphymoſis takes place in conſequence of a natural tightneſs only, although attended with chancres, yet it has nothing to do with the conſtitution, this being only accidental; however, in either caſe, a paraphymoſis is to be conſidered as in ſome degree a local violence.

This natural phymoſis is ſo conſiderable in ſome children as not to allow the urine to paſs with eaſe, but in general becomes larger and larger, as boys grow up, by frequent endeavours to bring it over the glans, by which the bad conſequences, that would otherways enſue in it when affected with diſeaſe, are often prevented.

This part of the prepuce, although in moſt men it is looſe enough to produce no inconvenience in a natural ſtate, yet it ſometimes contracts without any viſible cauſe whatever, and becomes ſo narrow as to hinder the water from getting out, even after it has got free of the urethra, ſo that the whole

whole cavity of the prepuce ſhall be filled with the urine, and give great pain. The caſes that I have ſeen of this kind have been principally in old men.

When the prepuce is in its natural poſition it then covers entirely the glans, and is commonly a little looſe before it; but when it begins to ſwell and thicken, more and more of the ſkin of the penis is drawn forwards over the glans, and the glans at the ſame time is puſhed backwards by the ſwelling againſt its end. I have ſeen the prepuce projecting from ſuch a cauſe more than three inches beyond the glans, and its aperture much diminiſhed.

The prepuce often becomes in ſome degree inverted by the inner ſkin yielding more than the outer, having a kind of neck where the outer ſkin naturally terminates. From the tightneſs and diſtenſion of the parts in a ſtate of tumefaction it becomes impoſſible to bring it back over the penis, ſo as to invert it, and expoſe the ſores on the inſide.

Such a ſtate of the prepuce is very often productive of bad conſequences, eſpecially when the chancres are behind the glans, for the glans being between the orifice of the prepuce and the ſorces, it there fills up the whole cavity of the prepuce, between the chancres and opening, and often ſo tightly that the matter from the ſores behind cannot get a paſſage forwards between the glans and prepuce, by which means there is an accumulation of matter behind the corona glandis, forming an abſceſs which produces ulceration upon the inſide of the prepuce; this abſceſs opens externally, and the glans often protruding through the opening, throws the whole prepuce to the oppoſite ſide, the penis appearing to have two terminations.

On the other hand, if the prepuce is looſe, wide, and is either accuſtomed to be kept back in its ſound ſtate, or is pulled back to dreſs the chancres, and is allowed to remain in this ſituation till the above tumefaction takes place, then it is called a paraphymoſis; or if the prepuce is pulled forcibly back after it is ſwelled, it is then brought from the ſtate of a phymoſis, as before-deſcribed, to that of a paraphymoſis.

This laſt-deſcribed ſituation of the prepuce is often much more troubleſome, and often attended with worſe ſymptoms than the former, eſpecially if it ſhould have been changed from a phymoſis to a paraphymoſis. The

reaſon

reaſon of which is, that the aperture of the prepuce is naturally leſs elaſtic than either the internal inverted part, or the external ſkin; therefore when the prepuce is pulled back upon the body of the penis, that part graſps it tighter than any other part of the ſkin of the penis, and more ſo in proportion to the inflammation; the conſequence of which is, the ſwelling of the prepuce is divided into two, one ſwelling cloſe to the glans, the other behind the ſtricture or neck. This ſtricture is often ſo great as to interrupt the free circulation of the blood beyond it, which alſo aſſiſts in increaſing the ſwelling, adds to the ſtricture, and often produces a mortification of the prepuce itſelf, by which means the whole diſeaſed part, together with the ſtricture, is ſometimes removed, forming what may be called a natural cure.*

In many caſes the inflammation not only affects the ſkin of the penis, in which is included the prepuce, but it attacks the body of the penis itſelf, often producing adheſions, and even mortification in the cells of the corpora cavernoſa, either of which will deſtroy the diſtenſibility of thoſe parts ever after, giving the penis a curve to one ſide in its erections. This ſometimes takes place through the whole cellular ſubſtance of the penis, producing a ſhort and almoſt inflexible ſtump.

The adheſions of thoſe cells do not proceed from venereal inflammation only; they are often the conſequences of other diſeaſes, and ſometimes they take place without any viſible cauſe whatever.

A gentleman, ſixty years of age, who has been lame with the gout theſe twenty years paſt, has for theſe eighteen months had the penis contracted on the left and upper ſide, ſo as to bend that way very conſiderably in erections, which erections are more frequent than common.

Quere: Is the gout the cauſe of this, by producing adheſions of the cells of one corpus cavernoſum, ſo as not to yield to, or allow of the influx of blood on that ſide? And is the irritation of the gout the cauſe of the frequency of the erections?

* A young man came into St. George's Hoſpital, with a paraphymoſis in conſequence of chancres on the inſide of the prepuce. All the parts before the ſtricture, formed by the prepuce, mortified and dropped off. I ordered nothing but common dreſſings, and it healed very readily, and he left the hoſpital cured of the local complaint. Whether or not abſorption had taken place, previous to the mortification, I do not know, as I never heard more of him.

CHAPTER

CHAPTER II.

OF CHANCRES IN WOMEN.

WOMEN are ſubject to chancres, but from the ſimplicity of the parts the complaint is often leſs complicated than in men. For in this ſex we have only the diſeaſe and conſtitutional affection, and no inconvenience ariſing from the formation of the parts.

When the matter is introduced into the vagina or urethra, it there irritates a ſecreting ſurface, as I deſcribed when treating of the diſeaſe in general, and of women in particular; but when it is lodged in the inſide of the ſkin of the labia, or nymphæ, thoſe parts are often only affected with gonorrhœa; but like the glans penis in men, they are alſo capable of ulceration; ulcerations are generally more numerous in women, becauſe the ſurface upon which they can form is much larger. We find them on the edge of the labia, ſometimes on the outſide, and even on the perinæum.

Ulcers that are formed on the inſide of the labia, or nymphæ, are never allowed to dry or ſcab; but on the outſide they are ſubject to have the matter dry upon them, which forms a ſcab, ſimilar to thoſe on the body of the penis or ſcrotum.

The venereal matter from ſuch ſores is very apt to run down the perinæum to the anus, as in a gonorrhœa, and excoriate the parts, eſpecially about the anus where the ſkin is thin, and often produce chancres in thoſe parts.

Chancres have been obſerved in the vagina, which I ſuſpect not to have been original ones, but to have ariſen from the ſpreading of the ulcers on the inſide of the labia.

This form of the diſeaſe, like the gonorrhœa, both in women and in men, is entirely local, the conſtitution having no connection with it but ſympathetically, and I believe much more ſeldom in this than in the former.

CHAPTER III.

GENERAL OBSERVATIONS ON THE TREATMENT OF CHANCRES.

THE inflammation from the venereal poiſon, when it produces ulceration, generally, if not always, continues till cured by art, which I obſerved was not the caſe with the gonorrhœa. It will perhaps not be an eaſy taſk to account for this material difference in the two kinds of diſeaſe; but I am inclined to think that, as the inflammation in the chancre ſpreads, it is always attacking new ground, which is a ſucceſſion of irritations, and is the cauſe that it does not cure itſelf.

Chancres, as well as the gonorrhœa, are perhaps ſeldom or never wholly venereal; but are varied by certain peculiarities of the conſtitution at the time. The treatment therefore of them, both local and conſtitutional, will admit of great variety; and it is upon the knowledge of this variety, that the ſkill of the ſurgeon principally depends. On this account the concomitant ſymptoms are what require particular attention. Mercury is the cure of the venereal ſymptoms abſtractedly conſidered; but there is no one ſpecific for the others, the treatment of which muſt vary according to the conſtitution. From hence we muſt ſee that no one kind of medicine, joined with mercury, will be likely to ſucceed in all caſes, although the different pretended ſecrets are of this kind: ſome caſes not requiring any thing excepting mercury, others requiring a ſomething beſides, according to their nature, which in many caſes it will not be an eaſy matter to find out, from the appearances of the chancre itſelf, but which muſt be diſcovered by repeated trials.

Probably from the before-mentioned circumſtances it is, that a chancre is in common longer in healing than moſt of the local effects from the conſtitutional diſeaſe, or lues venerea; at leaſt longer than thoſe in the firſt order

order of parts; and this is found to be the caſe notwithſtanding that the cure of a chancre may be attempted both conſtitutionally, and locally, while the lues venerea can in common only be cured conſtitutionally. It is commonly ſome time before a chancre appears to be affected by the medicine. The circulation ſhall be loaded with mercury for three, four, or more weeks before a chancre ſhall begin to ſeparate its diſcharge from its ſurface, ſo as to look red, and ſhow the living ſurface; but when once it does change, its progreſs towards healing is more rapid. A lues venerea ſhall in many caſes be perfectly cured before chancres have made the leaſt change.

Upon the ſame principle ſome attention ſhould be paid to internal medicines; and it ſhould be conſidered, whether weakening, ſtrengthening, or quieting medicines ſhould be given; for ſometimes one kind, ſometimes another, will be proper.

Chancres admit of two modes of treatment; the object of one, is to deſtroy, or remove them by means of eſcharotics, or by extirpation; that of the other, is to overcome the venereal irritation by means of the ſpecific remedy for that poiſon.

I have endeavoured to ſhow that chancres are local complaints; this opinion is further confirmed by their being deſtroyed or cured by merely a local treatment. But in chancres, as well as in a gonorrhœa, it has been diſputed whether mercury ſhould ever be applied locally to them or not; ſome have objected to it, while others have practiſed it, and probably the diſpute is not yet generally ſettled.

Upon the general idea which I have endeavoured to give of the venereal diſeaſe, it can be no difficult taſk to determine this queſtion.

It is to be obſerved that in the cure of the chancres we have two points in view, the cure of the chancre itſelf, and the prevention of a contamination of the habit.

The firſt, or the cure of the chancre, is to be effected by mercury applied either in external dreſſings, or internally through the circulation, or in both ways. The ſecond object, or preſervation of the conſtitution from contamination is to be obtained, firſt by ſhortening the duration of the chancre, which ſhortens the time of abſorption, and alſo by internal medicine, which muſt be in proportion to the time that the abſorption may have been going on.

If the power of a chancre to contaminate the conſtitution, or which is the ſame thing, if the quantity abſorbed is as the ſize of the chancre, and the time of abſorption, which moſt probably it is, then whatever ſhortens the time muſt diminiſh that power, or quantity abſorbed; and if the quantity of mercury neceſſary to preſerve the conſtitution is as the quantity of poiſon abſorbed, then whatever leſſens the quantity abſorbed muſt proportionally preſerve the conſtitution. For inſtance, if the power of a chancre to contaminate the conſtitution in four weeks is equal to four, and the quantity of mercury neceſſary to be given internally, both for the cure of the chancre and the preſervation of the conſtitution, is alſo equal to four, then whatever ſhortens the duration of the chancre muſt leſſen in the ſame proportion the quantity of the mercury; therefore if local applications along with the internal uſe of mercury will cure the chancre in three weeks, then only three-fourths of the mercury is neceſſarily wanted internally. Local applications therefore, ſo far as they tend to ſhorten the duration of a chancre, ſhorten the duration of abſorption, which alſo ſhortens the neceſſity of the continuance of an internal courſe of mercury, all in the ſame proportion. For example, if four ounces of mercurial ointment will cure a chancre and preſerve the conſtitution in four weeks, three ounces will be ſufficient to preſerve the conſtitution if the cure of the chancre can be by any other means forwarded ſo as to be effected in three weeks. This is not ſpeculation, but the reſult of experience, and the deſtruction of chancres confirms it.

I. OF THE DESTRUCTION OF A CHANCRE.

The ſimpleſt method of treating a chancre is by deſtroying or extirpating it, whereby it is reduced to the ſtate of a common ſore or wound, and heals up as ſuch. This only can be done on the firſt appearance of the chancre, when the ſurrounding parts are not as yet contaminated; becauſe it is abſolutely neceſſary that the whole diſeaſed part ſhould be removed, which is done with difficulty when it has ſpread conſiderably. It may be done either by inciſion or by cauſtic. If the chancre appears upon the glans, touching it with the lunar cauſtic is preferable to inciſion, becauſe the

the hæmorrhage by ſuch a mode would be conſiderable, from the cells of the glans.

The common ſenſation of the glans is not very acute, therefore the cauſtic will give but little pain. The cauſtic to be uſed ſhould be pointed at the end like a pencil, that it may only touch thoſe parts that are really diſeaſed; this treatment ſhould be continued till the ſurface of the ſore looks red and healthy after having thrown off the laſt ſloughs; after it has arrived at this ſtate, it will be found to heal like any other ſore produced by a cauſtic.

If the ſore is upon the prepuce, or upon the common ſkin of the penis, and in its incipient ſtate, the ſame practice may be followed with ſucceſs; but if it has ſpread conſiderably, it is then out of the power of the cauſtic, when only applied in this ſlow manner, to go ſo deep as to keep pace with the increaſing ſore; but it is very probable that the lapis ſepticus may anſwer very well in ſuch caſes. When this cannot be conveniently uſed, inciſion will anſwer the purpoſe effectually.

I have taken out a chancre by diſſection, and the ſore has healed up with common dreſſings. However, as our knowledge of the extent of the diſeaſe is not always certain; and as this uncertainty increaſes as the ſize of the chancre, it becomes neceſſary in ſome degree to aſſiſt the cure by proper dreſſings, and therefore it may be prudent to dreſs the ſore with mercurial ointment. From ſuch treatment there is but little danger of the conſtitution being infected, eſpecially if the chancre has been deſtroyed almoſt immediately upon its appearance, as we may then reaſonably ſuppoſe there has not been time for abſorption. But as it muſt be in moſt caſes uncertain whether there has been abſorption or not, this practice is not always to be truſted to; and from that circumſtance perhaps never ſhould; and therefore even in thoſe caſes where the chancre has been removed almoſt immediately, it would be prudent to give ſome mercury internally; the quantity of which ſhould be proportioned to the time and progreſs of the ſore; but if it has ſpread to a conſiderable ſize before extirpation, then mercury is abſolutely neceſſary, and perhaps not a great deal is gained by the extirpation.

II. OF

II. OF THE CURE OF CHANCRES—LOCAL APPLICATIONS.

The cure of a chancre is a different thing from its deſtruction, and conſiſts in deſtroying its venereal diſpoſition; which being effected, the parts heal of courſe as far as they are venereal.

Chancres may be cured in two different ways, either by external applications or internal, through the circulation. The ſame medicine is neceſſary for both theſe purpoſes, that is mercury.

I have ſhown that a gonorrhœa and a chancre have ſo far the ſame diſpoſition as to form the ſame kind of matter; yet I have alſo obſerved that mercury has no more power in curing the gonorrhœa than any other medicine; and therefore it might be ſuppoſed, that mercury would have no effect in the preſent complaint; but we find that in a chancre it is a ſpecific, and will cure every one that is truly venereal; but as other diſpoſitions take place, ſo other aſſiſtance is often neceſſary, as will be taken notice of in the hiſtory of the cure. The action of this medicine muſt be the ſame in whatever way it is given, for its action muſt be upon the veſſels of the part, in one way acting only externally, in the other internally.*

For external local applications, mercurial ointments are the common dreſſings; but if the mercury were joined with watery ſubſtances inſtead of oily, by mixing with the matter the application would be continued longer to the ſore, and would prove more effectual. This is an advantage that poultices have over common dreſſings. I have often uſed mercury rubbed down with ſome conſerve in the room of an ointment, and it has anſwered

* This is well illuſtrated by the application of ſome medicines locally to parts whoſe actions are immediate and viſible; and by throwing the ſame medicine into the conſtitution, the ſame immediate and viſible effect is produced; for inſtance, if ten grains of ipecacuanha is thrown into the ſtomach of a dog, it will in a ſhort time make him vomit, from its local applications to that viſcus; and if a ſolution of five grains is thrown into a vein, it will produce vomiting before we can conceive it to have got to the veſſels of the ſtomach. The ſame effects are produced from an infuſion of jalap thrown into the veins, that are commonly produced when taken into the ſtomach and bowels.

extremely

extremely well. Calomel uſed in the ſame way, and alſo the other preparations of mercury mixed with mucilage or with honey, anſwers the ſame purpoſe. Such dreſſings will effect a cure in caſes that are truly venereal; but perhaps we ſeldom have a conſtitution quite free from ſome morbid tendency.

Some will have an indolent diſpoſition, to counteract which it will be right to join with the mercury ſome warm balſam in a ſmall proportion, or as much red precipitate as will only ſtimulate, without acting as an eſcharotic; and ſometimes both may be neceſſary.

Calomel mixed with ſome ſalve, or any other ſubſtance which will ſuſpend it, is more active than common mercurial ointment, and in ſuch caſes as require ſtimulating applications it will anſwer better.

Many other applications are recommended, ſuch as ſolutions of blue vitriol, verdigreaſe, calomel, with the ſpiritus nitri dulcis, and many others.

But as all of theſe are only of ſervice in remedying any peculiar diſpoſition of the parts, having no ſpecific power on the venereal poiſon; and as ſuch diſpoſitions are innumerable, it becomes almoſt impoſſible to ſay what will be effectual in every diſpoſition; ſome will anſwer in one ſtate of the ſores, ſome in another. It may be found oftentimes that the parts affected are extremely irritable; in ſuch caſes it will be neceſſary to mix the mercury with opium, or perhaps preparations of lead, as white or red lead, to diminiſh the action of the parts.

The oftner the dreſſings are ſhifted, the better, as the matter from the ſore ſeparates the application from the diſeaſed parts, by which means the effects are loſt or diminiſhed. Three times every day in many caſes is not oftner than neceſſary, eſpecially if the dreſſings are of the unctuous kind, for they do not mix like watery dreſſings with the matter, ſo as to impart ſome of their virtues to it, which would in a proportional degree affect the ſore.

Chancres, after having their venereal taint corrected, often become ſtationary, and having acquired new diſpoſitions, increaſe the quantity of diſeaſe in the part, as will be taken notice of hereafter. When they become ſtationary only, they may often be cured by touching them ſlightly with the lunar cauſtic. They ſeem to require that the ſurface which has been

contaminated,

contaminated, or the new fleſh which grows upon that ſurface ſhould be either deſtroyed, or altered before it can cicatriſe; and it is ſurpriſing often how quickly they will heal after being touched; and probably once or twice may be ſufficient.

III. OF THE TREATMENT OF PHYMOSIS IN CONSEQUENCE OF, OR ATTENDED WITH CHANCRE.

From the hiſtory which I have given of the diſeaſe we muſt ſee that a phymoſis may be of two kinds, one natural with the diſeaſe ſuperadded, the other brought on by diſeaſe. The firſt may be increaſed by the diſeaſe; but if otherways it is not ſo troubleſome as the other. Such phymoſis as ariſe from the diſeaſe, I have obſerved, depend upon the p culiarity of the conſtitution. In either caſe it is often not practicable to apply dreſſings to the chancres on the inſide of the prepuce.

A phymoſis ſhould be prevented, if poſſible; therefore upon the leaſt ſigns of a thickening of the prepuce, which is known by its being retracted with difficulty and pain, the patient ſhould be kept quiet; if in bed ſo much the better, as in an horizontal poſition the end of the penis will not be ſo depending, but may be kept up. If confinement in bed cannot be complied with, then the end of the penis ſhould be kept up to the belly if poſſible; but this can hardly be done when the perſon is obliged to walk about; for the extravaſated fluids deſcending and remaining in the prepuce, contribute often more to render the prepuce incapable of being drawn back than the inflammation itſelf.

When the diſeaſed phymoſis completely takes place, the ſame precautions may be followed; but as the ſores cannot be dreſſed in the common way, we muſt have recourſe either to dreſſings in forms of injections, or the operation for the phymoſis. If we uſe injections only, they ſhould be often repeated, as they are only temporary applications.

The dreſſings, in form of injections, ſhould be mercurial, either crude mercury rubbed down with a thick ſolution of gum arabic, which will aſſiſt in retaining ſome of the injection between the glans and prepuce; or calomel with

with the ſame, and a proportion of opium. In the proportion of theſe no nicety is required; but if a ſolution of corroſive ſublimate is made uſe of as an injection, ſome attention is to be paid to its ſtrength. About one grain of this to an ounce of water will be as much as the ſenſation of the part will allow the patient to bear; and if this gives too much pain it may be lowered by adding more water.

After the parts are as well cleaned as poſſible with this injection, it will be neceſſary to introduce other mercurial applications, of ſome kind, to remain there till the parts want cleaning again, which will be very ſoon. Such as are mentioned before will anſwer this purpoſe very well; but I have my doubts about the propriety of uſing any irritating medicines or injections in ſuch caſes.

As often as he voids his urine, the patient may waſh the parts, by preſſing the orifice of the prepuce together, ſo as to oblige the water to run back between the prepuce and glans; immediately after this the patient ſhould uſe the mercurial applications, otherways this operation of waſhing may do harm, as it will waſh away the former application of mercury; but in many caſes the parts are ſo ſore as not to allow of this practice.

A poultice of linſeed meal alone, or of equal parts of this and bread, ſhould be applied. This poultice is to be made with water, to which one-eighth of laudanum has been added. But previous to this, and immediately after the cleaning, it would be very proper to let the penis hang over the ſteam of hot water, with a little vinegar and ſpirits of wine in it, which is the neateſt way of applying fomentations.

The oftner this is practiſed the better; for thus a mercurial application is kept in contact with the diſeaſed parts a greater number of the hours out of the twenty-four, than otherways could be, were the matter allowed to lie on the parts.

When to the above-mentioned ſymptoms a bleeding of the chancre is added, I do not know a more troubleſome complaint, becauſe here the cells or veins have no great diſpoſition for contraction.* Oil of turpentine gives the

* I ſuſpect that where chancres bleed profuſely, the blood comes either from the glans, when there are chancres there, or from the ſpongy ſubſtance of the urethra where the chancre has

the beſt ſtimulus for the contraction of veſſels of all kinds; but where bleeding ariſes from an irritable action of the veſſels, which is ſometimes the caſe, then ſedatives are the beſt applications. Whatever is uſed in ſuch a ſtate of the prepuce muſt be injected into the part.

When in conſequence of the treatment the inflammation begins to go off, and the chancres to heal, it will be neceſſary to move the prepuce upon the glans as much as they will allow of, to prevent adheſions which ſometimes happen when there have been chancres on both ſurfaces oppoſite to each other. Indeed the practice, here recommended, is ſuch as will in general prevent ſuch conſequences.

If this has not been properly attended to, and the parts have grown together, the conſequences may not be bad; but it muſt be very diſagreeable to the patient, and a reflection upon the ſurgeon.

I have ſeen the opening into the prepuce ſo much contracted from all theſe internal ulcers healing and uniting, that there was hardly any paſſage for the water. If the paſſage in the prepuce ſo contracted be in a direct line with the orifice of the urethra, then a bougie may be readily paſſed; but this is not always the caſe: it often happens that they are not in a direct line, therefore an operation becomes neceſſary. The operation conſiſts in either ſlitting up part of the prepuce, or removing part of it; but as theſe parts have become very indiſtinct from the adheſions, either the ſlitting it up, or removing part of it, becomes a difficult operation. Whenever the urethra is diſcovered, or can be found out by a bougie, that is to be introduced, and its application repeated till the paſſage becomes free and has got into the habit of keeping ſo.

I obſerved formerly that this tumefaction ſometimes produced a confinement of the matter formed by the chancre, and that while this effect laſted no ſubſiding of the inflammation or tumefaction could take place; that therefore thoſe diſeaſes continued to exiſt, and that the part thus circumſtanced came under our definition of an abſceſs; that is, the formation of matter in a ſtate of confinement. Although it never has been conſidered

begun about the frænum, for we ſeldom ſee profuſe bleedings from the prepuce when its inſide is the ſeat of the chancre and can be expoſed; but indeed in ſuch caſes the inflammation is not violent.

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in this light, yet the neceſſary treatment ſhows it to be ſuch. This conſiſts in laying it open from the external orifice to the bottom where the matter lies, as in a ſinus, or fiſtula, ſo as to diſcharge it. However the intention annexed to this practice was not to allow of the diſcharge of the matter of the ſore, but to admit of the applications of dreſſings to it, for it has been recommended and practiſed, where there was no particular confinement of matter, which I have not found to be neceſſary, merely for that purpoſe, as we are in poſſeſſion of an internal remedy; and if the opening produces no other good, but the allowing of the application of dreſſings, it is not ſo material, becauſe the ſores may be waſhed with an injection, through a ſyringe.

IV. OF THE COMMON OPERATION FOR THE PHYMOSIS PRODUCED BY CHANCRES.

The common operation for the phymoſis is ſlitting the prepuce nearly its whole length, in the direction of the penis; but even this is ſometimes thought not ſufficient, and it is directed to cut the prepuce in two different places, nearly oppoſite to one another. When it was thought proper to be done in this way, it was imagined that it was ſeldom neceſſary to cut the whole length of the prepuce. It will in ſome degree depend on circumſtances, which practice is to be followed. If it is a natural phymoſis without tumefaction, and the chancre is near the orifice of the prepuce, which in ſuch caſes it moſt probably will be, as the glans is not denuded in coition ſo as to have chancres deeper ſeated, then it may be neceſſary only to go as far as the chancres extend.

From the common ſituation of the chancre, this diſeaſe of the phymoſis ariſes more commonly from the tumefaction of the parts; and from the idea I have endeavoured to give of the inconveniences ariſing from this phymoſis, where the chancres are placed behind the corona, producing a confinement of the matter behind the glans, ſlitting open the prepuce a little way cannot be ſufficient, for in ſuch caſes it muſt be expoſed to the bottom, or no good can ariſe from the operation.

Although this operation will not take off the tumefaction of the prepuce ſo as to allow it to be brought back, yet it will allow of a free diſcharge of the matter, and alſo in ſome caſes it will allow of dreſſings being applied to the ſores; but not in all, for the tumefaction will not now allow more of an inverſion of the prepuce than before, and in ſuch the ſores cannot have dreſſings applied to them.

In many caſes it will be found that ſo violent an operation is improper; for it often happens that while the inflammation is ſo very conſiderable there is danger of increaſing it by this additional violence, of which mortification may be the conſequence; while on the other hand there are caſes where a freedom given to the parts would prevent mortification, ſo that the ſurgeon muſt be guided by the appearances, and other circumſtances. Beſides theſe reaſons for and againſt the operation ariſing from the diſeaſe itſelf, it will not always be conſented to by the patients themſelves, for ſome have ſuch a dread of operations that they will not ſubmit to cutting inſtruments; however in thoſe caſes where the matter is confined, it will be abſolutely neceſſary to have an opening ſomewhere for the diſcharge of it. This is often produced by the ulcerative proceſs going on on the inſide, which makes an opening directly through the ſkin, laterally, which affords a direction for the ſurgeon; therefore the opening may be made directly into the cavity of the prepuce, through the ſkin, on the ſide of the penis, by a lancet; or a ſmall cauſtic may be applied there, for which the lapis ſepticus is the moſt convenient.

The opening will allow of the diſcharge of the matter, and alſo admit any proper waſh to be thrown in. But this opening ſhould not be a large one, as in many caſes the conſequence of this lateral opening proves very troubleſome; for, from the tumefaction of the prepuce, the glans is ſqueezed on all ſides, and rather more backwards upon the body of the penis than in any other direction, by which means it is often forced through this opening, whereby the glans is directed to one ſide, and the prepuce to the oppoſite, having a forked appearance. Beſides, this ſtate of the parts tightens the ſkin of the penis round the root of the glans, acting there ſomewhat like a paraphymoſis, and ſometimes makes the whole prepuce mortify and drop off, which is often a lucky circumſtance; but if this is not the conſequence,

ſequence, then amputation of the prepuce becomes neceſſary; however this ſhould not be done till all inflammation is gone off, and the chancres are cured, when probably the tumefaction of the prepuce will have conſiderably ſubſided.

A mortification of the prepuce is ſometimes a conſequence of chancres, when attended with violent inflammation, even without any previous operation; and I have ſeen caſes where the glans and part of the penis have mortified, while the prepuce has kept its ground. But I ſhould ſuſpect in all ſuch caſes, that there is ſome fault in the conſtitution, and that the inflammation is of the eriſypelatous, not of the true ſuppurative kind.

I have ſeen the mortification go ſo far as to remove the whole of the diſeaſed prepuce, and the parts have put on ſo favourable an appearance that I have treated it as a common ſore, and no bad conſequences have happened. In this caſe the diſeaſed performed what is often recommended in other diſeaſes of this part, that is circumciſion; but this is not always to be truſted to, for if abſorption of the venereal matter has taken place, previous to the mortification, a lues venerea will be the conſequence, although the parts heal very readily.

V. OF THE CONSTITUTIONAL TREATMENT OF PHYMOSIS.

In thoſe caſes where violent inflammation has attacked the ſeat of a chancre, producing phymoſis, as before-deſcribed, and often ſo as to threaten mortification, a queſtion naturally occurs, what is to be done? Is mercury to be given freely to get rid of the firſt cauſe? Or does that medicine increaſe the effect while it deſtroys the cauſe? Nothing but experience can determine this. I ſhould incline to believe, that it is neceſſary that mercury ſhould be given, for I am afraid our powers to correct ſuch a conſtitution, while the firſt cauſe ſubſiſts, are weak. However, on the other hand, I believe the mercury ſhould be given ſparingly; for if it aſſiſts in diſpoſing the conſtitution to ſuch ſymptoms, we are gaining nothing, but may loſe by its uſe. I therefore do ſuppoſe that ſuch medicines, as may be thought neceſſary for the conſtitution, ſhould be given liberally, as well

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as the ſpecific. Bark is the medicine that probably will be of moſt general uſe; opium in moſt caſes of this kind will alſo be of ſingular ſervice. The bark ſhould be given in large quantities, and along with it mercury, while the virus is ſtill ſuppoſed to exiſt. Or if the inflammation has ariſen early in the diſeaſe, they may be then given together ſo as to counteract both diſeaſes, and not allow the inflammation to come to ſo great a height as it would otherways do if mercury was given at firſt alone. This inflammation may be ſo great in many caſes, or be ſo predominent, that mercury may increaſe the diſpoſition and therefore become hurtful. Where this may be ſuppoſed to be the caſe, bark muſt be given alone.

VI. OF THE TREATMENT OF THE PARAPHYMOSIS FROM CHANCRES.

A prepuce in the ſtate of inflammation and tumefaction, and which has been either kept back upon the body of the penis while inflaming, or pulled back when inflamed, ſeldom can be again brought forwards while in this ſtate, therefore becomes alſo the ſubject of an operation, which conſiſts in dividing the ſame part, as in the phymoſis, only in a different way, ariſing from its difference of ſituation; the intention of which operation is to bring the prepuce, when brought forwards, to the ſtate of a phymoſis that has been operated upon. This operation becomes more neceſſary in many caſes under this diſeaſe than under the phymoſis, becauſe its conſequences are generally worſe; ſince, beſides the real diſeaſe, viz. Inflammation, tumefaction, ulceration, &c. there is a mechanical cauſe producing its effects, by graſping the penis, which can of itſelf produce inflammation where the prepuce is naturally tight, as has been obſerved. From whatever cauſe it ariſes it often produces mortification in the parts between the ſtricture and the glans if it is not removed. This removal ſometimes happens naturally by the ulceration of the ſtrictured part; but an operation is generally neceſſary; and it is more troubleſome than in the former caſe, becauſe the ſwelling on each ſide of the ſtricture covers or cloſes in upon the tight part and makes it difficult to be got at.

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The beſt way appears to be to ſeparate the two ſwellings as much as poſſible where you mean to cut, ſo as to expoſe the neck, then take a crooked biſtory which is pointed, and paſſing it under the ſkin at the neck divide it; no part of the two ſwellings on the ſides need be divided, for it is the looſeneſs of the ſkin in theſe parts which admits of their ſwelling. When this is done the prepuce may be brought forwards over the glans; but as this diſeaſe aroſe from chancres which may require being dreſſed, and as the ſtate of a phymoſis is a very bad one for ſuch treatment, it may be better now that the ſtricture is removed, to let it remain in the ſame ſituation till the whole is well.

If the paraphymoſis has ariſen from a natural tightneſs of the prepuce, and its being forced back from accident, then no particular treatment after the operation is neceſſary, but to go on with the cure as recommended in chancres. It is indeed probable that in conſequence of the violence produced by the poſition of the prepuce, as alſo by the operation, a conſiderable inflammation may enſue; but as this will be an inflammation in conſequence of violence only, local treatment for the inflammation will be ſufficient.

But if it is a paraphymoſis in conſequence of a diſeaſed phymoſis, then the ſame mode of treatment becomes equally neceſſary as was recommended in the phymoſis attended with conſiderable inflammation; and probably rather more attention is neceſſary here, as violence has been added to the former diſeaſe.

VII. OF THE CURE OF CHANCRES BY MERCURY GIVEN INTERNALLY.

While chancres are under local treatment, as before-deſcribed, it is neceſſary to give mercurials internally, both for the cure of a chancre and the prevention of a lues venerea; and we may reaſonably venture to affirm, that the venereal diſpoſition of chancre will hardly ever withſtand both local and internal mercurials.

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In caſes of chancres where local applications cannot eaſily be made, as in caſes of phymoſis, internal mercurials become abſolutely neceſſary; and more ſo than if they could be conveniently and freely applied externally. However, even in ſuch caſes internal mercurials will in the end effect a cure; ſo that we need ſeldom or ever be under any apprehenſion of not curing ſuch a diſeaſe.

In every caſe of a chancre, let it be ever ſo ſlight, mercury ſhould be given internally; even in thoſe caſes where they were deſtroyed on their firſt appearance. It ſhould in all caſes be given the whole time of the cure, and continued for ſome time after the chancres are healed; for as there are perhaps few chancres without abſorption of the matter, it becomes abſolutely neceſſary to give mercury to act internally, in order to hinder the venereal diſpoſition from forming.

How much mercury ſhould be thrown into the conſtitution in the cure of a chancre, for the prevention of that conſtitutional affection, is not eaſily aſcertained, as there is in ſuch caſes no diſeaſe actually formed ſo as to be a guide, it muſt be uncertain what quantity ſhould be given internally. It muſt in general be according to the ſize, number, and duration of the chancres. If large, we may ſuppoſe that the abſorption will be proportioned to the ſurface, and if long continued, the abſorption will be according to the time; and if they have been many, large, and continued long, then the greateſt quantity is neceſſary.

The circumſtances therefore attending the chancre muſt be the guide for the ſafety of the conſtitution, eſpecially in thoſe caſes where ſome ſtreſs in the cure is laid upon the external remedy.

The mercury given to act internally muſt be thrown in either by the ſkin or ſtomach, according to circumſtances.

The quantity in either way ſhould be ſuch as may in common affect the mouth ſlightly; which method of giving mercury will be conſidered hereafter.

When the ſore has put on a healthy look, when the hard baſis has become ſoft, and it has ſkinned over kindly, it may be looked upon as cured.

But in very large chancres it may not always be neceſſary to continue the application of mercury either for external or internal action till the

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ſore is healed; for the venereal action is juſt as ſoon deſtroyed in a large chancre as it is in a ſmall one; for every part of the chancre being equally affected by the mercury, is equally eaſily cured. But the ſkinning is different; for a large ſore is longer in ſkinning than a ſmall one. A large chancre therefore may be deprived of its venereal action long before it is ſkinned over; but a ſmall one may probably ſkin over before the venereal poiſon is entirely ſubdued. In the latter caſe, both on account of the chancre and conſtitution, it will be erring on the ſafe ſide to continue the medicine a little longer, which will moſt certainly in the end effect a cure: for we may reaſonably ſuppoſe that the quantity of mercury capable of curing a local effect, although aſſiſted by local applications, or of producing in the conſtitution a mercurial irritation ſufficient to hinder the venereal irritation from forming, will be nearly as much as will cure a ſlight lues venerea.

I have formerly laid it down as a principle, that no new action will take place in another part of the body, however contaminated, whilſt the body is under the beneficial operation of mercury; but there are now and then appearances which occur under the cure that will at firſt embarraſs the practitioner. I have ſuſpected that the mercury flying to the mouth and throat has ſometimes produced ſloughs in the tonſils, and theſe have been taken for venereal. The following caſes in ſome degree explain this.

A young gentleman had a chancre on the prepuce, with a ſlight pain in a gland of one groin, for which I ordered mercurial ointment to be rubbed into the legs and thighs, eſpecially on the ſide where the gland was ſwelled, and the chancre to be dreſſed with mercurial ointment. While he was purſuing this courſe the chancre became cleaner, the hardneſs at the baſe went off, and the pain in the groin was entirely removed. About three weeks after the firſt appearance of the diſeaſe, he was attacked with a ſore throat, and on looking into the mouth I found the right tonſil with a white ſlough which appeared to be in its ſubſtance, with only one point yet expoſed. From my mind being warped by the opinion that theſe complaints proceeded from the chancre, I immediately ſuſpected that it was venereal; and the only way that I could account for this ſeeming contradiction in one part healing while another was breaking out, was, that the healing ſore

was treated locally as well as conſtitutionally, while the tonſil, or the conſtitution at large, was only treated conſtitutionally, which was inſufficient.

Soon after this another gentleman was under my care for venereal ſcurffs, or eruptions on his ſkin, for which he uſed mercurial friction till his mouth became ſore; and in this ſtate he continued for three weeks, in which time the eruptions were all gone, diſcolourations being left only where the eruptions had been, yet at the end of three weeks a ſlough formed in one of the tonſils, exactly as in the former caſe. This made me doubtful how far ſuch caſes were venereal. I ordered the friction to be left off, to ſee what courſe the ulcers would take; the ſlough came out and left a foul ſore: I waited ſtill longer, and in a day or two it became clean and healed up.

The firſt-mentioned caſe I did not ſee to an end; but I learned that the patient continued the mercury and got well; and the ulcer in the throat was ſuppoſed to be venereal; but from the circumſtances of the other caſe I now very much doubt of that.

It is more than probable that theſe effects of mercury only take place in conſtitutions that have a tendency to ſuch complaints in the throat. I know this to be the caſe with the laſt-mentioned gentleman; and it is alſo probable that there may be an increaſed diſpoſition at the time, either in conſequence of the mercury, or ſome accidental cauſe. I have reaſon to ſuppoſe that mercury in ſome degree increaſes this diſpoſition, which I ſhall further take notice of when treating of the cure of the lues venerea.

In the cure of chancres I have ſometimes ſeen, when the original chancre has been doing well, and probably nearly cured, that new ones have broken out upon the prepuce, near to the firſt, and have put on all the appearance of a chancre; but ſuch I have always treated as not venereal. They may be ſimilar to ſome conſequences of chancres, which will be taken notice of hereafter.

As ſwellings of the abſorbent glands take place in conſequence of other abſorptions beſides that of poiſons, we ſhould be careful in all caſes to aſcertain the cauſe, as has been already deſcribed; and here it may not be improper ſtill to obſerve further, that in the cure of chancres, ſwellings of the

the glands ſhall ariſe, even when the conſtitution is loaded with mercury ſufficient for the cure of the ſores; but then the mercury has been thrown into the conſtitution by the lower extremity; and therefore there is great room for ſuſpicion that ſuch ſwellings are not venereal, but ariſe from the mercury: for a real bubo, from abſorption of venereal matter, if not come to ſuppuration, will give way to mercury rubbed into the leg and thigh. In ſuch caſes I have always deſiſted from giving the mercury in this way when I could give it by the mouth.

CHAPTER IV.

OF THE CURE OF CHANCRES IN WOMEN.

THE parts generally affected with chancres in this ſex, are more ſimple than in men, by which means the treatment in general is alſo more ſimple; but in moſt caſes they require nearly the ſame, both in the local application of mercury, and in throwing it into the conſtitution. It may be ſuppoſed however, that it will be neceſſary in many caſes to throw into the conſtitution more mercury than in men; becauſe in general there are more chancres, and the ſurface of abſorption of courſe larger.

As it is difficult to keep dreſſings on the female parts, it is proper they ſhould be waſhed often with ſolutions of mercury; perhaps corroſive ſublimate is one of the beſt, as it will act as a ſpecific, and alſo as a ſtimulant when that is wanted; but in chancres that are very irritable, the ſame mode of treatment as was recommended in men is to be put in practice. Afterwards the parts may be beſmeared with a mercurial application, either oily or watery, to be frequently repeated according to the circumſtances of the caſe.

If the ulcers ſhould have ſpread, or run up the vagina, great attention ſhould be paid to the healing of them; for it ſometimes happens that the granulations contract conſiderably ſo as to draw the vagina into a ſmall canal; at other times the granulations will unite into one another and cloſe the vagina up altogether; therefore in ſuch caſes it will be neceſſary to keep ſome ſubſtance in the vagina till the ſores are ſkinned, for which purpoſe probably lint may be ſufficient.

CHAPTER V.

OF SOME OF THE CONSEQUENCES OF CHANCRES —AND THE TREATMENT OF THEM.

AFTER the chancres have been cured, and all venereal taint removed, it ſometimes happens that the prepuce ſtill retains a conſiderable degree of tumefaction, which keeps up the elongation and tightneſs which it acquired from the diſeaſe, ſo that it cannot be brought back upon the penis to expoſe the glans.

For this perhaps there is, in many caſes, no cure; however it is neceſſary to try every poſſible means. The ſteam of warm water, fomentations with hemlock, and alſo fumigations with cinnabar, are often of ſingular ſervice in this caſe.

But if the parts ſtill retain their ſize and form, it may be very proper to remove part of the overgrown prepuce; how much, muſt be left to the diſcretion of the ſurgeon. I ſhould ſuppoſe, that all that part, which projects beyond the glans penis, may be cut away.

The beſt way of removing it is by the knife; but great care ſhould be taken to diſtinguiſh firſt the projecting prepuce from the glans. When this is perfectly aſcertained, the penis being held horizontally, an inciſion may be made on the upper ſurface, and followed down with caution; becauſe if the inciſion ſhould be too near the glans, there may be danger of cutting it.

The parts may be allowed to heal with any common dreſſings, as it is to be conſidered as a freſh wound; however it will not heal ſo readily as a freſh wound made in an entirely ſound part, becauſe the operation conſiſts in taking away only a ſuperfluous part of a diſeaſed whole; and what is left is diſeaſed, but not ſo as to produce any future miſchief.

Some care may be neceſſary in the healing of the parts; for it is very poſſible that the cicatrix may contract, and ſtill form a phymoſis. This will

will be beſt prevented by the patient himſelf if he brings the prepuce often back upon the penis; but it ſhould not be attempted till the part is nearly healed; and it is to be performed with great care, and ſlowly.

I. OF DISPOSITIONS TO NEW DISEASES DURING THE CURE OF CHANCRES.

Chancres, both in men and women, often acquire new diſpoſitions in the time of the cure, which are of various kinds, ſome of which retard the cure, as deſcribed, and, when the parts are cured, leave them tumefied and indolent, as in the enlarged prepuce. In others a new diſpoſition takes place, which prevents the cure or healing of the parts, and often produces a much worſe diſeaſe than that from which it aroſe. They alſo become the cauſe of the formation of tumors on theſe parts, which will be taken notice of hereafter.

Such new diſpoſitions take place oftner in men than in women, probably from the nature of the parts themſelves. They ſeldom or never happen but when the inflammation has been violent, which violence ariſes more from the nature of the parts than the diſeaſe, and therefore belongs more to the nature of the parts or conſtitution than to the diſeaſe. However I can conceive it may alſo take place where the inflammation has not been violent.

In general they are ſuppoſed to be cancerous, but I believe they ſeldom are; although it is not impoſſible that ſome may be ſo.

Of this kind may be reckoned thoſe continued and often increaſed inflammations, ſuppurations, and ulcerations, becoming diffuſed through the whole prepuce, as alſo all along the common ſkin of the penis, which becomes of a purple hue; the cellular membrane every where on the penis being very much thickened ſo as to increaſe the ſize of the whole conſiderably.

The ulceration, on the inſide of the prepuce, will ſometimes increaſe and run between the ſkin and the body of the penis, and eat holes through in different places till the whole is reduced to a number of ragged ſores. The glans often ſhares the ſame fate till more or leſs of it is gone; frequently the

the urethra at this part is wholly deſtroyed by ulceration, and the urine is diſcharged ſome way further back. If a ſtop is not put to the progreſs of the diſeaſe, the ulceration will continue till the parts are entirely deſtroyed. I ſuſpect that ſome of theſe caſes are ſcrofulous.

As this is an acute caſe, immediate relief ſhould be given, if poſſible; but as it may ariſe from various peculiarities in the conſtitution, and as theſe peculiarities are not at firſt known, no rational method can be here determined. The decoction of ſarſaparilla is often of ſervice in ſuch caſes, but requires to be given in large quantities.

The German diet-drink* has been of ſingular ſervice; I knew a caſe of this kind cured by it, after every known remedy had been tried. The extract of hemlock is ſometimes of ſervice. I have known ſea-bathing cure theſe complaints entirely. A gentleman came from Ireland with a complaint of this kind, and after having tried every common, and known method, without effect, as ſarſaparilla, hemlock, German diet-drink; and after having uſed a great variety of dreſſings, (which were all at laſt laid aſide, and opium only retained to quiet the pain) he bathed in the ſea and got well. It may be ſometimes neceſſary to paſs a bougie, to hinder the orifice of the urethra from cloſing or becoming too ſmall in the time of healing in ſuch caſes.

II. OF ULCERATION RESEMBLING CHANCRES.

It often happens that after chancres are healed, and all the virus gone, the cicatrices ulcerate again, and break out in the form of chancres.

* The following formulæ have been much recommended as diet-drinks. Take of crude antimony, pulverized, tied up in a bit of rag; pumice-ſtone, pulverized, tied up in the ſame, of each one ounce; China-root, ſliced; ſarſaparilla-root, ſliced and bruiſed, of each half an ounce; ten walnuts, with their rinds, bruiſed; ſpring-water, four pints; boiled to half that quantity; filter it, and let it be drank daily in divided doſes.

Take ſarſaparilla, Saunders-wood, white and red, of each three ounces; liquorice and mezereon, of each half an ounce; of lignum, rhodium, guaiacum, ſaſſafras, of each one ounce; crude antimony, two ounces; mix them and infuſe them in boiling water, ten pints, for twenty-four hours; and afterwards boil them to five pints, of which let the doſe be from a pint and an half to four pints a day.

Although

Although this is moſt common in the ſeat of the former chancres, yet it is not always confined to them; for ſores often break out on other parts of the prepuce; but ſtill they appear to be a conſequence of a venereal complaint having been there, as they ſeldom attack thoſe who never had gonorrhœa or chancres. They often have ſo much the appearance of chancres, that I am perſuaded many are treated as venereal that are really not ſuch: they differ from a chancre in general by not ſpreading ſo faſt, nor ſo far; they are not ſo painful, nor ſo much inflamed, and have not thoſe hard baſes that the venereal ſores have, nor do they produce buboes. Yet a malignant kind of them, when they attack a bad conſtitution, may be taken for a mild kind of chancre, or a chancre in a good conſtitution.

Some ſtreſs is to be laid upon the account that the patient gives of himſelf: but when there is any doubt, a little time will clear it up. I have ſeen the ſame appearances after a gonorrhœa; but that more rarely happens. It would appear that the venereal poiſon could leave a diſpoſition for ulceration of a different kind from what is peculiar to itſelf. I knew one caſe where they broke out regularly every two months, exactly to a day.

As they are not venereal their treatment becomes difficult; for the cure conſiſts more in preventing a return, than in the healing up of the preſent ſores.

They require particular attention; for although they are not dangerous, they are often troubleſome, keeping the mind in ſuſpence for months.

I have tried a great variety of means, but with little ſucceſs, yet they have in general got well in the end. In the following caſe, the lixivium ſaponarium produced a ſpeedy cure.

A gentleman had three ſores broke out on the prepuce, which had very much the appearance of mild chancres. As I was doubtful of their nature, I waited ſome time, and only ordered them to be kept clean. As they did not get well, ſeveral things were tried. Mercurial dreſſings were applied, but they always produced conſiderable irritation, and it was neceſſary to leave them off. The mercurius calcinatus was given by way of trial, and to ſecure the conſtitution, but the ſores continued the ſame. They were eat down with the lunar cauſtic, which appeared to have a better effect than any other thing tried; but ſtill they were not healed at the end of five months.

months. I ordered forty drops of the lixivium ſaponarium to be taken every evening and morning in a baſon of broth. After uſing it three days he obſerved a conſiderable alteration in the ſores, and in ſix they were perfectly ſkinned over. He had formerly had ſuch ſores often, which had always been treated as venereal; but he began to doubt whether they really were ſo from their getting ſo ſoon well in the preſent inſtance by the lixivium.

I knew a gentleman who had theſe ſores breaking out and healing again for years. By bathing in the ſea for a month or two they healed up and never afterwards appeared.

III. OF A THICKENING AND HARDENING OF THE PARTS.

In ſome caſes the parts do not ulcerate, but appear to thicken and become hard or firm; both the glans and prepuce ſeem to ſwell, forming a tumor or excreſcence from the end of the penis, in form a good deal like a cauliflower, and, when cut into, ſhowing radii running from its baſe, or origin towards the external ſurface, becoming extremely indolent in all its operations. This gives more the idea of a cancer than the firſt, being principally a new formed ſubſtance. However, it is not always a conſequence of the venereal diſeaſe, for I have known it to ariſe ſpontaneouſly.

This diſeaſe appears to be a tumor of ſo indolent a kind, that I do not know any medicine that ſtands the leaſt chance of performing a cure. I have amputated them, and have alſo ſeen the ſame thing done by others, from the idea of their being cancerous, and the remaining part of the penis has healed kindly.

In moſt of theſe caſes a conſiderable part of the penis muſt be removed. Immediately after the amputation, a ſuitable catheter ſhould be introduced into the urethra; for if no ſuch precaution is made uſe of, the conſequences muſt be troubleſome; for the firſt dreſſings become cemented to the orifice by the extravaſated blood, and prevent the patient's making water, which muſt be attended with obvious inconveniences. This was the caſe with a patient whoſe penis I amputated.

IV. OF WARTS.

ANOTHER diſpoſition, which theſe parts acquire from the venereal poiſon, is the diſpoſition to form excreſcences, or cutaneous tumors, called warts. This diſpoſition is ſtrongeſt, where the chancres were; and indeed chancres often heal into warts; but perhaps the parts acquire this diſpoſition from the venereal matter having been long in contact with their ſurfaces; for it often happens after gonorrhœas, where there had been no chancres; and probably it is only in thoſe caſes where the venereal matter had produced the venereal ſtimulus upon the glans and prepuce, forming there what may be called an inſenſible gonorrhœa.

A wart appears to be an excreſcence from the cutis, or a tumor forming upon it, by which means it becomes covered with a cuticle, which like all other cuticles, is either ſtrong and hard, or thin and ſoft, juſt as the cuticle is which covers the parts from whence they ariſe. They are radiated from their baſis to the circumference, the radii appearing at the ſurface pointed or granulated, much like granulations that are healthy, except that they are harder, and riſe above the ſurface. It would appear that the ſurface, on which each is formed, has only the diſpoſition to form one, becauſe the ſurrounding and connecting ſurface does not go into the like ſubſtance; thus a wart once begun does not increaſe in its baſis, but riſes higher and higher. They have an increaſing power within themſelves; for after riſing above the ſurface of the ſkin, on which they are not allowed to increaſe in breadth at the baſis, they ſwell out into a round thick ſubſtance, which becomes rougher and rougher.

This ſtructure often makes them liable to be hurt by bodies rubbing againſt them; and often from ſuch a cauſe they bleed very profuſely, and are very painful.

Theſe excreſcences are conſidered by many not as ſimply a conſequence of the venereal poiſon, but as poſſeſſed of its ſpecific diſpoſition, and therefore they have recourſe to mercury for the cure of them; and it is aſſerted that ſuch treatment often removes them. Such an effect of mercury I have never

never ſeen, although given in ſuch a quantity as to cure in the ſame perſon recent chancres, and ſometimes a pox.

As theſe ſubſtances are excreſcences from the body, they are not to be conſidered as truly a part of the animal, not being endowed with the common or natural animal powers, by which means the cure becomes eaſier. They are ſo little of the true animal, and ſo much of a diſeaſe, that many trifling circumſtances make them decay; an inflammation in the natural and ſound parts round the wart will give it a diſpoſition to decay; many ſtimuli applied to the ſurface will often make them die. Electricity will produce action in them which they are not able to ſupport; an inflammation is excited round them, and they drop off.

From this view of them, the knife and eſcharotics muſt appear not always neceſſary, although theſe modes will act more quickly than any other in many caſes, eſpecially if the neck is ſmall. In ſuch formed warts perhaps a pair of ſciſſars is the beſt inſtrument; but where cutting inſtruments of any kind are horrible to the patient, a ſilk thread tied round their neck will do very well; but in whichſoever way it is ſeparated, it will be in general neceſſary to touch the baſe with cauſtic.

Eſcharotics act upon warts in two different ways, namely, by deadening a part and ſtimulating the remainder; ſo that by the application of eſcharotic after eſcharotic, the whole decays tolerably faſt; and it is ſeldom neceſſary to eat them down to the very root, as the baſis or root often ſeparates and is thrown off. This however is not always the caſe, for we find that the root does not always ſeparate, and that it will grow again; therefore in ſuch caſes it is neceſſary to eat down lower than the general ſurface to remove the root.

Any of the cauſtics, ſuch as the lapis ſepticus, as alſo the metallic ſalts, ſuch as the lunar cauſtic, blue vitriol, &c. have this power. The ruſt of copper and ſavine leaves mixed are one of the beſt ſtimulants.

After they have been to appearance ſufficiently deſtroyed, they often riſe anew, not from any part being left, but from the ſurface of the cutis having the ſame diſpoſition as before. This requires a repetition of the ſame practice, ſo as to take off that ſurface of the cutis.

V. OF EXCORIATIONS OF THE GLANS AND PREPUCE.

It very often happens that the ſurface of the glans and inſide of the prepuce excoriate, becoming extremely tender, and then a matter oozes out. The prepuce in ſuch caſes often becomes a little thickened, and ſometimes contracts in its orifice, both which circumſtances render the inverſion of it difficult and painful. Whether this complaint ever ariſes from a venereal cauſe is not certain, as it often takes place where there never has been any venereal taint.

This diſeaſe is in the cutis; and under ſuch a diſpoſition it has no power of forming a good cuticle. It is very ſimilar to a gonorrhœa in this part, but is not venereal.

Drawing the prepuce back, and ſteeping the parts in a ſolution of lead, often takes off the irritation, and a ſound cuticle is formed. Spirits diluted often produce the ſame effect; the unguentum citrinum of the Edinburgh Diſpenſatory, lowered by mixing with it equal parts of hogs-lard, is often of ſingular ſervice in ſuch caſes; but there are caſes which bid defiance to all our applications, in which I have ſucceeded by deſiring the perſon to leave the glans uncovered, which produced the ſtimulus of neceſſity for the formation of a natural cuticle.

PART V.

CHAPTER I.

OF BUBO.

A Knowledge of the abſorbing ſyſtem, as it is now eſtabliſhed, gives us conſiderable information reſpecting many of the effects of poiſons, and illuſtrates ſeveral ſymptoms of the venereal diſeaſe, in particular the formation of buboes. Prior to this knowledge we find writers at a loſs how to give a true and conſiſtent explanation of many of the ſymptoms of this diſeaſe. The diſcovery of the lymphatics being a ſyſtem of abſorbents, has thrown more light on many diſeaſes than the diſcovery of the circulation of the blood; it leads in many caſes directly to the cauſe of the diſeaſe.

The immediate conſequence of the local diſeaſes, gonorrhœa and chancre, which is called bubo, as alſo the remote or lues venerea, ariſe from the abſorption of recent venereal matter from ſome ſurface where it has either been applied or formed. Although this muſt have been allowed in general ever ſince the knowledge of the diſeaſe and of abſorption, yet a true ſolution of the formation of bubo could not be given till we had acquired the knowledge of the lymphatics being the only abſorbents. Upon the old opinion of abſorption being performed by the veins, the lues venerea could have eaſily been accounted for, becauſe it could as readily be produced by the abſorbing power of the veins, if they had ſuch, as by the lymphatics; but the difficulty was to ſay how the bubo was formed. There they ſeemed to be at a loſs to account for this diſeaſe, yet they ſometimes expreſſed themſelves as if they had ſome idea of it, although at the ſame time they could have no clear notions of what they advanced; nor could they demonſtrate what they ſaid from the knowledge of the parts and their uſes.

Buboes

Buboes are by ſome imputed to the ſtopping of a gonorrhœa, or as they expreſſed it, driving it to the glands of the groin, conformably to the idea they had of the cauſe of the ſwelling of the teſticle. But this is not juſt, for we know of no ſuch power as repulſion; and if it was driven there it could not be by ſtopping the formation of matter, but by increaſing the abſorption, of which they had no idea.

When we examine the opinion of authors concerning the formation of bubo, prior to the knowledge of the power of abſorption in the lymphatics, we ſhall find them making uſe of terms which they could not poſſibly underſtand. For inſtance, Heiſter ſays, "They are of two kinds, one venereal, and the other not;" but he does not ſay that the venereal ariſes only from impure coition.

Aſtruc ſays, page 326, that ſome buboes ariſe immediately from impure coition, and theſe he calls eſſential; others from ſuppreſſed gonorrhœa, or a ſmall diſcharge, or from chancres of the penis, and theſe he calls ſymptomatic; laſtly, that they ariſe ſpontaneouſly without any immediate previous coition, and are a pathognomonic ſign of a hidden pox.

In page 327 he ſhows the impoſſibility of this laſt happening from what we now call or underſtand by a lues venerea; but in page 328 he explains what he calls a latent lues venerea, which is local affection produced as he ſuppoſes from a lues venerea; but which moſt probably never yet happened; and if ever they had ariſen from ſuch a cauſe, even the abſorption of their matter could not produce a venereal bubo, as will be explained. In ſhort, as he underſtood not the true abſorbing ſyſtem, his ideas are become now unintelligible.*

We find Cowper, Drake, and Boerhaave, as well as Aſtruc, ſpeaking of the vitiated lymph not paſſing the glands, therefore inflaming them; alſo of the inſpiſſated lymph paſſing either by the circulation of the blood, that is, from the conſtitution to theſe glands, (an opinion held by ſome to this day) or by a ſhorter courſe, viz. The lymphatic veſſels which go to the inguinal glands. They alſo ſpeak of the ſwelling of the inguinal glands, or venereal buboes, from the contagion being communicated by the reſorbent

* The above extracts are from the Engliſh Edition, publiſhed in the year 1754, page 326.

lymphatics.

lymphatics. Drake even ſpeaks more pointedly; and if we conſider him no further, he would almoſt make us believe that he knew that the lymphatics were the abſorbents; but as he has no ſuch ideas when treating of thoſe veſſels expreſſly, we are not to give him credit for it. His words are, "The venereal bubo may very likely take its riſe from ſome parts of the contagious matter of claps ſucked up by the lymphatics of the penis, and thence imported to the inguinal glands where they depoſit their liquor; and thence it well behoves the ſurgeon to be as early as may be in the opening of ſuch tumors, before by the exporting veſſels of that claſs the poiſon is carried further into the blood, which very probably may be the caſe where ſuch tumor ariſeth immediately upon the ſtopping of a gonorrhœa, as does the hernia humoralis; but when the ſame appears ſome months after that was removed, we are to ſuppoſe as in caſes of other poiſons laying hold of the blood, by the ſtrength of Nature it is thrown forth, either by means of the lymphatics of the blood-veſſels themſelves, if not ſpewed out of the nervous tubes, as Wharton ſurmiſed, and depoſited in theſe emunctories."

Here he compares it to the formation of a hernia humoralis, which plainly ſhows that he underſtood neither of them.

Even ſo late as the year 1748, we do not find any new ideas on this ſubject: Freke ſays, "By ſealing up the mouths of the glands of the urethra, the poiſon is thence by the ducts leading to the inguinal glands conveyed to them."

In the year 1754, eight years after Dr. Hunter having publicly taught his opinion of the lymphatics being a ſyſtem of abſorbents, we find a treatiſe on this diſeaſe by Mr. Gataker, where as little new is advanced on this ſubject, as in any of the former.

When we come ſo low down as the year 1770, in an abridgement of Aſtruc, by Dr. Chapman, (ſecond edition) in which he introduces his own knowledge and ideas, we find the abſorbing power of the lymphatics brought in as a cauſe of the formation of buboes; but by this time the knowledge of the lymphatics being the ſyſtem of abſorbents was in this country generally diffuſed.

The doctrine of abſorption being now perfectly underſtood, we have only to explain the different modes in which it may take place.

The

The venereal matter is taken up by the abſorbents of the part in which it is placed; and although the abſorption of the matter and the effects after abſorption are the ſame, whether from the matter of the gonorrhœa or chancre, yet I ſhall divide the abſorption into three kinds, according to the three different ſurfaces from which the matter may be abſorbed, beginning with the leaſt frequent.

The firſt and moſt ſimple is where the matter either of a gonorrhœa or chancre has only been applied to ſome ſound ſurface, without having produced any local effect on the part, but has been abſorbed immediately upon its application. Inſtances of this I have ſeen in men, and ſuch are perhaps the only inſtances that can be depended upon; for it is uncertain in many caſes, whether a woman has a gonorrhœa or not. I think however I may venture to affirm that I have ſeen it in women, or at leaſt there was every reaſon to believe that they had neither chancre, nor gonorrhœa preceding, as there was no local appearance of it, nor did they communicate it to others who had connection with them.

It muſt be allowed that this mode of abſorption is very rare; and if we were to examine the parts very carefully, or inquire of the patients very ſtrictly, probably a ſmall chancre might be diſcovered to have been the cauſe, which I have more than once ſeen. For when we conſider how rarely it happens from a gonorrhœa, in which the mode of abſorption is ſimilar, we can hardly ſuppoſe it probable that it ſhould here ariſe from ſimple contact, the time of the application of the venereal matter being commonly ſo very ſhort. We might indeed ſuppoſe the frequency to make up for the length of time, which we can hardly allow, for the ſame frequency ſhould give the chance of producing it locally. Therefore very particular attention ſhould be paid to all the circumſtances attending ſuch caſes.

There is however no great reaſon why it ſhould not happen, and the poſſibility of it leſſens the faith that is to be put in the ſuppoſition, that the diſeaſe may be years in the conſtitution before it appears; for whenever it does appear in a lues venerea, its date is always carried back to the laſt local affection, whether gonorrhœa or chancre, and the latter connections are never regarded.

The

The ſecond mode of abſorption of this matter is more frequent than the former, and it is when the matter applied has produced a gonorrhœa; and it may happen while the complaint is going on, either under a cure or not. Some of the matter ſecreted by the inflamed ſurfaces having been abſorbed and carried into the circulation, produces the ſame complaints as in the former caſe, by which means the perſon gives himſelf the lues venerea.

The third mode is the abſorption of the matter from an ulcer, which may either be a chancre, or a bubo. This mode is by much the more frequent; which, with many other proofs, would ſhow that a ſore or ulcer, is the ſurface moſt favourable for abſorption. Whether ulcers in every part of the body have an equal power of abſorption I have not been able to determine; but I ſuſpect that an ulcer on the glans is not ſo good a ſurface for abſorption as one on the prepuce, although I have ſeen both buboes and the lues venerea ariſe from the former, but not ſo often as from the latter.

To theſe three methods may be added a fourth, abſorption from a wound; which I have already remarked is, perhaps, not ſo frequent as any of the former.

As the venereal poiſon has the power of contaminating whatever part of the body it comes in contact with, it contaminates the abſorbent ſyſtem, producing in it local venereal complaints. It is hardly neceſſary to obſerve, that what is now commonly underſtood by a bubo, is a ſwelling taking place in the abſorbing ſyſtem, eſpecially in the glands, ariſing from the abſorption of ſome poiſon, or other irritating matter; and when ſuch ſwellings take place in the groin, they are called buboes, whether from abſorption or not, but are moſt commonly ſuppoſed to be venereal, even although there has been no viſible preceding cauſe. This has been ſo much the caſe, that all ſwellings in this part have been ſuſpected to be of this nature; femoral ruptures, and aneuryſms of the femoral artery have been miſtaken for venereal buboes.

I ſhall call every abſceſs in the abſorbing ſyſtem, whether in the veſſels or the glands, ariſing in conſequence of the abſorption of venereal matter, a bubo.

This matter when abſorbed from either of the four different ſurfaces, which are common ſurfaces, wounds, inflamed ſurfaces, and ulcers, is car-

ried along the abſorbent veſſels to the common circulation, and in its paſſage often produces the ſpecific inflammation in theſe veſſels; the conſequence of which is the formation of buboes, which are venereal abſceſſes, exactly ſimilar in their nature and effects to a chancre; the only difference being in ſize. As the abſorbents with the glands are immediately irritated by the ſame ſpecific matter which has undergone no change in its paſſage, the conſequent inflammation muſt therefore have the ſame ſpecific quality, and the matter ſecreted in them be venereal.*

As this ſyſtem of veſſels may be divided into two claſſes, the veſſels themſelves, and their ramifications and convolutions, called the lymphatic glands, I ſhall follow the ſame diviſion in treating of their inflammations.

Inflammation of the veſſels is not nearly ſo frequent as that of the glands. In men, ſuch inflammations, in conſequence of chancres upon the glans or prepuce, generally appear like a chord leading along the back of the penis from the chancres. Sometimes they ariſe from the thickening of the prepuce in gonorrhœas, that part in ſuch caſes being generally in a ſtate of excoriation, as was deſcribed when I treated of that form of the diſeaſe. Theſe cords often terminate inſenſibly on the penis, near its root, or near the pubes; at other times they extend further, paſſing to a lymphatic gland in the groin: this chord can be eaſily pinched up between the finger and thumb, and it often gives a thickneſs to the prepuce, making it ſo ſtiff at this part as to make the inverſion of it difficult, if not impoſſible, producing a kind of phymoſis.

I think I have obſerved this appearance to ariſe as frequently from the gonorrhœa, when attended with the before-mentioned inflammation and tumefaction of the prepuce, as from chancres; which, if my obſervation is juſt, is not eaſily accounted for. I have obſerved that abſorption is more common to ulcers than inflamed ſurfaces; or at leaſt the formation of a bubo in the gland, and its effects in the conſtitution, are more common from an ulcer; but it may be remarked, that the inſide of the prepuce, from

* I do not know how far this reaſoning will hold good in all caſes of poiſons; for I very much ſuſpect that the bubo that is ſometimes formed in conſequence of inoculation of the ſmall-pox does not produce variolous matter. The natural poiſons, in producing buboes, certainly do not form a poiſon ſimilar to themſelves.

whence

whence this cord appears to ariſe, is in an excoriated ſtate. It is poſſible that this effect may ariſe from the lymphatics ſympathiſing with the inflammation of the urethra; but I believe the affection is truly venereal; or it is poſſible that even the abſorption of the coagulable lymph, which was produced from the venereal inflammation, and which is the cauſe of the tumefaction, may have the power of contamination, as appears to be the caſe in the cancer.

The thickening, or the formation of this hard chord, probably ariſes from the thickening of the coats of the abſorbents, joined with the extravaſation of coagulable lymph, thrown in upon its inner ſurface, as in inflamed veins.

This cord often inflames ſo much as to ſuppurate, and ſometimes in more places than one, forming one, two, or three buboes, or ſmall abſceſſes in the body of the penis. When this is going on, we find in ſome parts of this chord a circumſcribed hardneſs; then ſuppuration takes place in the centre, the ſkin begins to inflame, the matter comes nearer to it, and the abſceſs opens like any other abſceſs.

I have ſeen a chain of theſe buboes, or little abſceſſes, along the upper part of the penis through its whole length.

This may be ſuppoſed to be exactly ſimilar to the inflammation and ſuppuration of a vein after being wounded and expoſed.

Inflammation of the glands is much more frequent than the former, and ariſes from the venereal matter being carried on to the lymphatic glands; the ſtructure of which appears to be no more than the ramifications and reunion of the abſorbent veſſels, by which means they form theſe bodies.

From this ſtructure we may reaſonably ſuppoſe that the fluid abſorbed is in ſome meaſure detained in theſe bodies, and thereby has a greater opportunity of communicating the diſeaſe to them than to the diſtinct veſſels, where its courſe is perhaps more rapid; which may account for the glands being more frequently contaminated.

Swellings of theſe glands are common to other diſeaſes, and ſhould be carefully diſtinguiſhed from thoſe that ariſe from the venereal poiſon. The firſt inquiry ſhould be into the cauſe, to ſee if there is any venereal complaint at ſome greater diſtance from the heart, as chancres on the penis, or any preceding diſeaſe on the penis; to learn if mercurial ointment has been

at all applied to the legs and thighs of that ſide; for mercury applied to thoſe parts, for the cure of a chancre, will ſometimes tumefy the glands, which has been ſuppoſed to be venereal. We ſhould further obſerve, if there be no preceding diſeaſe in the conſtitution, ſuch as a cold, fever, &c. the progreſs of the ſwelling with regard to quickneſs is alſo to be attended to, as alſo to diſtinguiſh it from a rupture, lumbar abſceſs, or aneuryſm of the crural artery.

Perhaps theſe bodies are more irritable, or more ſuſceptible of ſtimuli than the veſſels. They are certainly more ſuſceptible of ſympathy; however we are not yet ſufficiently acquainted with the uſe of theſe glands to be able to account ſatisfactorily for this difference.

It would appear in ſome caſes, that it is ſome time after the abſorption of the venereal matter before it produces its effects upon the glands; in ſome it has been ſix days at leaſt. This could only be known by the chancres being healed ſix days before the bubo began to appear; and in ſuch caſes it is more than probable that the matter had been abſorbed a much longer time before; for the laſt matter of a chancre moſt probably is not venereal; and indeed it is natural to ſuppoſe that the poiſon may be as long before it produces an action on the parts, when applied in this way, as it is either in the urethra, or in forming a chancre; which I have ſhown to be ſometimes ſix or ſeven weeks.

The glands, neareſt to the ſeat of abſorption, are in general the only ones that are attacked, as thoſe in the groin, when the matter has been taken up from the penis in men. In the groin, between the labia and thigh, and the round ligaments, when abſorbed from the vulva, in women. I think there is commonly but one gland at a time that is affected by the abſorption of venereal matter, which, if ſo, becomes in ſome ſort a diſtinguiſhing mark between venereal buboes and other diſeaſes of theſe bodies. We never find the lymphatic veſſels, or glands, that are ſecond in order, affected; as thoſe along the iliac veſſels, or back; and I have alſo ſeen when the diſeaſe has been contracted by a ſore, or cut upon the finger, the bubo come on a little above the bend of the arm, upon the inſide of the biceps muſcle; and in ſuch where the bubo has come in that part none has formed in the armpit, which is the moſt common place for the glands to be affected by abſorption.

But

But this is not univerſal, although common, for I was informed by a gentleman who contracted the diſeaſe in the before-mentioned way, that he had buboes both on the inſide of the biceps muſcle, and in the arm-pit. Another caſe of this kind I have heard of ſince; why it is not more common is perhaps not eaſily explained.

It might be ſuppoſed that the matter was weakened, or much diluted by the abſorptions from other parts by the time it gets through theſe neareſt ramifications, and therefore has not power to contaminate thoſe which are beyond them; but it is moſt probable that there are other reaſons for this. I once ſuſpected that the nature of the poiſon was altered in theſe glands as it paſſed through them, which was the reaſon why it did not contaminate the ſecond or third ſeries of glands; and alſo why it did not affect the conſtitution in the ſame way as it did the parts to which it was firſt applied; but this explanation will not account for the next order of glands to ſuppurating buboes not being affected by the abſorption of venereal matter. It appears to me that the internal ſituation of the other glands prevents the venereal irritation from taking place in them; and this opinion is ſtrengthened by obſerving when one of theſe external glands ſuppurates and forms a bubo, which is to be conſidered as a large venereal ſore or chancre, that the abſorption from it, which muſt be great, does not contaminate the lymphatics or glands next in order, by the venereal matter going directly through them.

If this be true, then the ſkin would ſeem to be the cauſe of the ſuſceptibility of the abſorbents to receive the irritation. Whether the ſkin has the power inherent in itſelf, or acquires it from ſome other circumſtance, as air, cold, or ſenſe of touch, is not eaſily aſcertained; but whichever it be, it ſhows that the venereal matter of itſelf is not capable of irritating, and that it requires a ſecond principle to complete its full effect, that is, a combination of the nature of the poiſon and the influence of the ſkin, and that influence muſt be by ſympathy, and therefore weaker than if acting in the ſame part, that is, the ſkin itſelf; which perhaps is the reaſon why the venereal matter does not always affect thoſe veſſels and glands, while it always does the ſkin, if inſerted into it.

The

The ſituation of buboes ariſing from the venereal diſeaſe in the penis, are in men, in the abſorbent glands of the groin: if a gonorrhœa is the cauſe of a bubo, one groin is not exempted more than the other, both may be affected; but if a bubo ariſes in conſequence of a chancre, then the groin may be generally determined by the ſeat of the chancre; for if the chancre is on one ſide of the penis, then the bubo will commonly be on that ſide; however, this is not univerſally the caſe, for I have known inſtances, although but few, where a chancre on one ſide of the prepuce, or penis, has been the cauſe of a bubo on the oppoſite ſide, which, if ariſing from that chancre, is a proof that the abſorbents either anaſtomoſe, or decuſſate each other. If the chancre be on the frænum, or on the middle of the penis, between the two ſides, then it is uncertain which ſide will be affected.

The ſituation of the glands of the groin is not always the ſame, and therefore the courſe of the abſorbent veſſels will vary accordingly. I have ſeen a venereal bubo which aroſe from a chancre on the penis, a conſiderable way down the thigh; on the contrary, I have ſeen it often as high as the lower part of the belly, before Poupart's ligament, and ſometimes near the pubes, all of which three ſituations may lead to ſome variations in the method of cure, therefore it may be proper to attend to them.

As the diſeaſe moſt commonly ariſes from copulation, the ſituations of buboes are generally in the groin; but as no part of the body, under certain circumſtances, is exempt from this diſeaſe, we find the neareſt external glands between the part of abſorption, and the heart, every where in the body ſhare the ſame fate with thoſe of the groin, eſpecially if external.

CHAPTER

CHAPTER II.

OF BUBOES IN WOMEN.

THE ſame diſeaſes in the abſorbents in conſequence of the abſorption of the venereal matter, take place in this ſex as well as in men. I never ſaw but one caſe where the abſorbent veſſels were diſeaſed; but this is nearly in the ſame proportion as in men, when I conſider the proportion the number of the one ſex bears to that of the other who apply to me for a cure of the venereal diſeaſe in any form. The caſe was a gonorrhœa with violent itching and ſoreneſs when the patient ſat or walked; but ſhe had very little pain in making water. When I examined the parts, I could ſee no difference between them and ſound parts, excepting that the left labium was ſwelled, or fuller than the other, and a hard chord paſſed from the centre of that labium upwards to the os pubis, and paſſed on to the groin of the ſame ſide, and was loſt in a gland as high as Poupart's ligament. It was not to be felt but by preſſing the parts with ſome force, and it gave conſiderable pain upon preſſure.

The ſwelling of the labium appeared to be ſomewhat ſimilar to the ſwelling of the prepuce in ſimilar caſes in men, ſo that they would appear to ariſe from the ſame cauſe.

One would naturally ſuppoſe that what has been ſaid of this complaint in the lymphatic glands in men, would be wholly applicable to women; and alſo that nothing peculiar to women could take place; but the ſeat of abſorption is more extenſive in this ſex, and the courſe of ſome of the abſorbents is alſo different, from whence there are three ſituations of buboes in women, two of which are totally different from thoſe in men, and theſe I ſuſpect to be in the abſorbents.

The third ſituation of buboes in this ſex is ſimilar to that in men, and therefore they may be divided into three, as in men.

When

When buboes ariſe in women where there is no chancre, it is more difficult to know whether they are venereal or not than in men; for when they ariſe in men without any local complaint, it is known that no ſuch complaint exiſts, and therefore the bubo cannot be venereal, excepting by immediate abſorption; but in women it is often difficult to know whether there be any infection preſent or not; and therefore in order to aſcertain the nature of the bubo, attention muſt be paid to its manner of coming on, progreſs, and other circumſtances.

When chancres are ſituated forwards, near to the meatus urinarius, nymphæ, clitoris, labia, or mons veneris, then we find that the matter abſorbed is carried along one or both of the round ligaments, and the buboes are formed in thoſe ligaments juſt before they enter the abdomen, without, I believe, ever going further. Theſe buboes I ſuſpect not to be glandular, but inflamed abſorbents; and if ſo it ſtrengthens the idea that it is only an external part that can be affected in this way.

When the chancres are ſituated far back, near the perinæum, or in it, the matter abſorbed is carried forwards along the angle between the labium and the thigh to the glands in the groin, and often in this courſe there are formed ſmall buboes in the abſorbents, ſimilar to thoſe on the penis in men; and when the effects of the poiſon do not reſt here, it often produces a bubo in the groin as in men.

CHAPTER

CHAPTER III.

OF THE INFLAMMATION OF BUBOES, AND THE MARKS THAT DISTINGUISH THEM FROM OTHER SWELLINGS OF THE GLANDS.

THE bubo commonly begins with a ſenſe of pain, which leads the patient to examine the part, where a ſmall hard tumor is to be felt.* This increaſes like every other inflammation that has a tendency to ſuppuration; and, if not prevented, goes on to ſuppuration and ulceration, the matter coming faſt to the ſkin.

But we find caſes, where they are ſlow in their progreſs, which I ſuſpect either ariſes from the inflammatory proceſs being kept back by mercury, or other means; or being retarded by a ſcrofulous tendency, ſuch a diſpoſition in the parts not ſo readily admitting the true venereal action.

At firſt the inflammation is confined to the gland, which is moveable in the cellular membrane; but as it increaſes in ſize, or as the inflammation, and more eſpecially the ſuppuration, advances, which in all caſes produce rather a common than a ſpecific effect, the ſpecific diſtance is exceeded; the ſurrounding cellular membrane becomes more inflamed; and the tumor is more diffuſed. Some buboes become eriſypelatous, by which means they are rendered more diffuſed and œdematous, and do not readily ſuppurate, a circumſtance often attending the eriſypelatous inflammation.

To aſcertain what a diſeaſe is, is the firſt ſtep in the cure; and when two or more cauſes produce ſimilar effects, great attention is neceſſary to

* It muſt be remarked here, that whenever a perſon has either a gonorrhœa or a chancre, he becomes apprehenſive of a bubo; and as there are in the gonorrhæa, and ſometimes in the chancre, ſympathetic ſenſations in or near the groin, they are ſuſpected by the patient to be beginning buboes, and the hand is immediately applied to the part; and if he feels one of the glands, although not in the leaſt increaſed, the ſuſpicions are confirmed from a belief that he has no ſuch parts naturally.

diſtinguiſh one effect from another, ſo as to come at the true cauſe of each.

The glands of the groin, from their ſituation, are liable to ſuſpicion, for beſides being ſubject to the common diſeaſes, they become expoſed to others by allowing whatever is abſorbed to paſs through them; and as the rout of the venereal poiſon to the conſtitution is principally through them, and being oftner ill from this cauſe than any other, they often are ſuſpected of this diſeaſe without foundation.

To diſtinguiſh, with certainty, the true venereal bubo from ſwellings of thoſe glands ariſing from other cauſes, may be very difficult. We muſt, however, examine all circumſtances, to aſcertain in what the bubo differs from the common diſeaſes of thoſe glands, whether in the groin or elſewhere; in which examination the apparent cauſes are not to be neglected. I have already given the character of the venereal bubo in general terms; but I ſhall now be more particular, as the two are to be contraſted.

The true venereal bubo, in conſequence of a chancre, is moſt commonly confined to one gland. It keeps nearly its ſpecific diſtance till ſuppuration has taken place, and then becomes more diffuſed.* It is rapid in its progreſs from inflammation to ſuppuration and ulceration. The ſuppuration is commonly large for the ſize of the gland, and but one abſceſs. The pain is very acute. The colour of the ſkin where the inflammation attacks is of a florid red.

It may be obſerved, that the buboes in conſequence of the firſt mode of abſorption, viz. where no local diſeaſe has been produced, will always be attended with a greater uncertainty of the nature of the diſeaſe than thoſe attended or preceded by a diſeaſe in the penis; becauſe a ſimple inflammation and ſuppuration of theſe glands are not ſufficient to mark it to be venereal; but as we always have this diſeaſe in view when the glands of the groin are the ſeat of the diſeaſe, the patient runs but little riſk of not being cured, if it ſhould be venereal; but I am afraid that patients have often undergone a mercurial courſe when there has been no occaſion for it.

* It may be obſerved here, that the glands and ſurrounding parts being diſſimilar, inflammation does not ſo readily become diffuſed as when it takes place in a common part.

It

It will perhaps be difficult to find out the ſpecific difference in the diſeaſes themſelves; but I think that ſuch buboes as ariſe without any viſible cauſe are of two kinds, one ſimilar to thoſe ariſing from chancres or gonorrhœa; that is, inflaming and ſuppurating briſkly. Theſe I have always ſuſpected to be venereal; for although there is no proof of there being ſo, yet from theſe circumſtances there is a ſtrong preſumption that they are.

The ſecond are generally preceded and attended with ſlight fever, or the common ſymptoms of a cold, and they are generally indolent and ſlow in their progreſs. If they are more quick than ordinary, they become more diffuſed than the venereal, and may not be confined to one gland. When very ſlow they give but little ſenſation; but when more quick the ſenſation is more acute, though not ſo ſharp as in thoſe that are venereal; and moſt commonly they do not ſuppurate, but often become ſtationary. When they do ſuppurate it is ſlowly, and often in more glands than one, the inflammation being more diffuſed, and commonly ſmall in proportion to the ſwelling. The matter comes ſlowly to the ſkin, not attended with much pain, and the colour is different from that of the other, being more of the purple. Sometimes the ſuppurations are very conſiderable, but not painful.

Now let us ſee what other cauſes there are for the ſwelling of theſe glands beſides venereal infection, to which I have aſcribed one of the modes of ſwelling; for there muſt be other cauſes to account for the other modes of it.

The firſt thing to be attended to is, whether or not there are any venereal complaints; and if not, this becomes a ſtrong preſumptive proof that they may not be venereal, but proceed from ſome unknown cauſe. If the ſwelling is only in one gland, very ſlow in its progreſs, and gives but little or no pain, it is probably merely ſcrofulous; but if the ſwelling is conſiderable, diffuſed and attended with ſome inflammation and pain, then it is moſt probable that there is a conſtitutional action conſiſting in ſlight fever, the ſymptoms of which are laſſitude, loſs of appetite, want of ſleep, ſmall quick pulſe, and an appearance of approaching hectic. Such ſwellings are ſlow in their cure, and do not ſeem to be affected by mercury, even when very early applied.

A gentleman had all the ſymptoms of a ſlight fever; the pulſe a little quick and hard, loſs of appetite, and of courſe loſs of fleſh; a liſtleſſneſs and a ſallow look. While he was in this ſtate, a ſwelling took place in the glands of one of the groins. He immediately ſent for me, becauſe he imagined it to be venereal. From the hiſtory of the caſe I gave it as my firm opinion it was not; in this he had not much faith. The ſwellings were not very painful; and, after having acquired a conſiderable ſize, they became ſtationary. To pleaſe him, I gave him a box of mercurial ointment, to be rubbed on the leg and thigh only of the ſide affected, that it might have a ſufficient local effect, and as little go into the conſtitution as poſſible; but it did not appear to be of any ſervice to the ſwellings in the groin, they remaining ſtationary, and almoſt without pain. His friends became uneaſy, and ſent their ſurgeons to him, who, without knowing he was my patient, and of courſe without knowing my opinion, imagined that the diſeaſe was venereal, and talked of giving mercury. With reſpect to the cure, I thought he ſhould go to the ſea and bathe.

Allowing the chance of the diſeaſe being venereal or not venereal, to be equal, I reaſoned upon that ground. His preſent want of health could not be ſuppoſed to ariſe from any venereal cauſe, as it was prior to the ſwelling in the groin, and therefore though the ſwelling might be venereal, he was not at preſent in a condition to take mercury, as a ſufficient quantity of that medicine, for the cure, might kill him; and if it ſhould not be venereal, that ſtill a greater quantity of mercury muſt be given than what was neceſſary if it were venereal; becauſe its not giving way readily would naturally make the ſurgeon puſh the mercury further; and, beſides this diſagreeable circumſtance, the diſeaſe in the groin might be rendered more difficult of cure. But by going to the ſea, his conſtitution would be reſtored; and if the diſeaſe in the groin proved to be venereal, he would be in a proper condition to go through a mercurial courſe, and by that means get rid of both diſeaſes by the two methods. But if I ſhould be right in my opinion, that there was nothing venereal in the caſe, then he would probably get well by the ſea-bathing alone.

Theſe arguments had the deſired effect; he went directly to the ſea, and began to recover almoſt immediately. About a fortnight after, a ſmall ſuppuration

puration took place in one of the glands. I directed that a poultice ſhould be made with ſea-water and applied; and, in caſe of the breaking of the abſceſs, that it ſhould not be further opened, but poulticed till healed. In ſix weeks he came back perfectly recovered in every reſpect.

The above-mentioned appearance, with the conſtitutional affections, I have ſeen take place when there were chancres; and I have been puzzled to determine whether it was ſympathetic, from a derangement of the conſtitution, or from the abſorption of matter.

I have long ſuſpected a mixed caſe; and I am now certain that ſuch exiſts. I have ſeen caſes, where the venereal matter, like a cold or fever, has only irritated the glands to diſeaſe, producing in them ſcrofula, to which they were prediſpoſed.

In ſuch caſes the ſwellings commonly ariſe ſlowly, give but little pain, and ſeem to be rather haſtened in their progreſs if mercury is given to deſtroy the venereal diſpoſition. Some come to ſuppuration while under this reſolving courſe; and others, which probably had a venereal taint at firſt, become ſo indolent that mercury has no effect upon them, and in the end get well either of themſelves or by other means; which, I imagine, may have induced ſome to think that buboes are never venereal. Such caſes require great attention, that we may be able to determine them properly; and I believe, this requires in many caſes ſo nice a judgment, that we ſhall be often liable to miſtakes.

Buboes are undoubtedly local complaints, as has been explained.

How far the lymphatic glands are to be conſidered as guards againſt the further progreſs of this or any other diſeaſe caught by abſorption, is not eaſily determined. We muſt however allow that they cannot prevent the poiſon from entering the conſtitution, in caſes where it produces buboes; for whenever it affects theſe glands in its courſe, it produces the ſame diſeaſe in them which is capable of furniſhing the conſtitution with an increaſed quantity of the ſame kind of poiſon.

CHAPTER

CHAPTER IV.

GENERAL REFLECTIONS ON THE CURE OF BUBOES.

FROM what has been offered on the hiſtory of buboes, it will be needleſs here to enter into a diſcuſſion of the opinion of their being a depoſit from the conſtitution, and of the concluſion drawn from this opinion, that they ought not to be diſperſed; for according to this theory, to diſperſe them would be to throw the venereal matter upon the conſtitution. But if this were really the caſe, then there would be no occaſion for the uſe of mercury, provided that the bubo be allowed to proceed, as it would prove its own cure; but even thoſe who were of this opinion, were not ſatisfied with the cure which they ſuppoſed Nature had pointed out, but gave mercury, and in very large quantities. From the ſame hiſtory of a bubo I have alſo endeavoured to ſhow that there are ſeveral buboes which are not in the leaſt venereal, but ſcrofulous; and that there are alſo buboes which appear to be only in part venereal; or perhaps only a gland diſpoſed to ſcrofula brought into action by the venereal irritation, ſimilar to what happens often from the matter of the ſmallpox in inoculation. Therefore prior to the ſpeaking of the method of cure, the true venereal bubo is to be diſtinguiſhed from the others, if poſſible. When it is well aſcertained to be venereal, reſolution is certainly to be attempted, if the bubo be in a ſtate of inflammation only. The propriety of the attempt depends upon the progreſs which the diſeaſe has made. If it be very large, and ſuppuration appears to be near at hand, it is probable that reſolution cannot be effected; and if ſuppuration has taken place, I ſhould very much doubt the probability of ſucceſs, and an attempt might now poſſibly only retard the ſuppuration, and protract the cure.

The reſolution of theſe inflammations depends principally upon mercury, and almoſt abſolutely upon the quantity that can be made to paſs through them;

them; and the cure of them, if allowed to come to ſuppuration, depends upon the ſame circumſtances. The quantity of mercury, that can be made to paſs through a bubo, depends principally upon the quantity of external ſurface for abſorption beyond the bubo.

Mercury is to be applied in the moſt advantageous manner, that is, to thoſe ſurfaces by an abſorption from which it may paſs through the diſeaſed gland: for the diſeaſe there being deſtroyed, the conſtitution has leſs chance of being contaminated. The powers of mercury may often be increaſed from the manner in which it is applied. In the cure of buboes, it ſhould always be made to paſs into the conſtitution by the ſame way through which the habit received the poiſon; and therefore to effect this, it muſt be applied to the mouths of thoſe lymphatics which paſs through the diſeaſed part, and which will always be placed on a ſurface beyond the diſeaſe.

But the ſituation of many buboes is ſuch as not to have much ſurface beyond them, and thereby not to allow of a ſufficient quantity of mercury being taken in in this way; as for inſtance, thoſe buboes on the body of the penis ariſing from chancres on the glans or prepuce.

Theſe two ſurfaces are not ſufficient to take in the neceſſary quantity to cure thoſe buboes in its paſſage through them; therefore whenever the firſt ſymptoms of a bubo appear, its ſituation is well to be conſidered, with a view to determine if there be a ſufficient ſurface to effect a cure, without our having recourſe to other means. It is firſt to be obſerved, whether the abſorbent veſſels, on the body of the penis, are affected, or the glands in the groin. If the diſeaſe be in the groin, it muſt be obſerved in which of the three ſituations of the bubo, before taken notice of, it is; whether on the upper part of the thigh and groin, on the lower part of the belly before Poupart's ligament, or near to the pubes. If they are on the body of the penis, this ſhows that the abſorbents, leading directly from the ſurface of abſorption, are themſelves diſeaſed. If in the groin, and on the upper part of the thigh, or perhaps a little lower down than what is commonly called the groin, then we may ſuppoſe it is in the glands common to the penis and thigh. If high up, or on the lower part of the belly, before Poupart's ligament, then it is to be ſuppoſed that thoſe abſorbents, that ariſe from about the groin, lower part of the belly, and pubes, paſs through

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the bubo; and if far forwards, then it is moſt probable that only the abſorbents of the penis and ſkin about the pubes, paſs that way. The knowledge of theſe ſituations is very neceſſary for the application of mercury for the cure by reſolution, and for the cure after ſuppuration has taken place.

The propriety of this practice muſt appear at once, when we conſider that the medicine cannot paſs to the common circulation without going through the diſeaſed parts; and it muſt promote the cure in its paſſage through them; while at the ſame time it prevents the matter, which has already paſſed, and is ſtill continuing to paſs into the conſtitution from acting there, ſo that the bubo is cured and the conſtitution preſerved.

But this practice alone is not always ſufficient; there are many caſes in which mercury by itſelf cannot cure. Mercury can only cure the ſpecific diſpoſition of the inflammation; and we know that this diſeaſe is often attended with other kinds of inflammation beſides the venereal.

Sometimes the common inflammation is carried to a great height, at other times the inflammation is eriſypelatous, and, I ſuſpect, often ſcrofulous. We muſt, therefore, have recourſe to other methods.

Where the inflammation riſes very high, bleeding, purging, and fomenting, are generally recommended. Theſe will certainly leſſen the active power of the veſſels, and render the inflammation more languid; but they can never leſſen the ſpecific effects of this poiſon, which were the firſt cauſe, and are ſtill in ſome degree the ſupport of the inflammation. Their effects are only ſecondary; and if they reduce the inflammation within the bounds of the ſpecific, it is all the ſervice they can perform. If the inflammation be of the eriſypelatous kind, perhaps bark is the beſt medicine that can be given; or if it be ſuſpected to be ſcrofulous, hemlock, and poultices made with ſea-water may be of ſervice.

Vomits have been of ſervice in reſolving buboes, even after matter has been formed in them, and after they have been nearly ready to burſt; this acts upon the principle of one irritation deſtroying another; and ſickneſs and the act of vomiting perhaps give a diſpoſition for abſorption. A remarkable inſtance of this kind happened in an officer, who had a bubo, at Liſbon. It came to fair ſuppuration, and was almoſt ready to burſt. The ſkin was thin and inflamed; and a plain fluctuation felt. I intended to

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open it; but as he was going on board a ſhip for England on the day following, I thought it better to defer it. When he went on board, he ſet ſail immediately; and the wind blew ſo very hard that nothing could be done for ſome days, all which time he was very ſick, and vomited a good deal; when the ſickneſs went off, he found the bubo had diſappeared, and it never afterwards appeared. When he came to England, he went through a regular courſe of mercury.

I. OF RESOLUTION OF THE INFLAMMATION OF THE ABSORBENTS ON THE PENIS.

The ſurface beyond the ſeat of the diſeaſe in this caſe, that is all that part of the penis before the bubo, is not large enough to take in a quantity of mercury ſufficient to prevent the effects of abſorption, and therefore recourſe is to be had to other means; yet this application ſhould by no means be neglected, and this ſurface, ſmall as it is, ſhould be conſtantly covered with mercurial ointment, which will aſſiſt in the cure of the local diſeaſe. It may diſputed whether any medicine can paſs through diſeaſed lymphatics, ſo as to have any effect upon them, but I judge from experience that it certainly can. As this ſurface is too ſmall, and as it is neceſſary that a larger quantity ſhould be taken in, it becomes proper to give it either by the mouth, or by friction on ſome larger ſurface; this is neceſſary to prevent the lues venerea, as well as to cure the parts themſelves. The quantity cannot be determined; that muſt be left to the ſurgeon, who muſt be directed by the appearances of the original complaint, and the readineſs with which the diſeaſe gives way.

The ſame method is to be followed in women; but as there is a larger ſurface in this ſex, more mercury may poſſibly be abſorbed; and there ſhould be a conſtant application of ointment to the inſide, and outſide of the labia.

II. OF THE RESOLUTION OF BUBOES IN THE GROIN.

The inflammation of the glands is to be treated exactly upon the ſame principle with the other; but we have in general a larger ſurface of abſorption, ſo that we can make a greater quantity of mercury paſs through the diſeaſed parts.

It will be proper to apply the mercury according to the ſituation of the inflamed gland. If the bubo be in the groin, according to our firſt ſituation, then it is neceſſary to rub the mercurial ointment upon the thigh. This ſurface will in general abſorb as much mercury as will be ſufficient to reſolve the bubo, and to preſerve the conſtitution from being contaminated by the poiſon that may get into it; but if reſolution does not readily take place, then we may increaſe the ſurface of friction, by rubbing the ointment upon the leg.

But if the bubo be on the lower part of the belly, that is, in the ſecond ſituation, then the ointment ſhould be rubbed alſo upon the penis, ſcrotum, and belly; and the ſame, if the bubo ſhould be ſtill forwards; for probably thoſe glands receive the lymphatics from all the ſurfaces mentioned, as well as from the thigh and leg.

The length of time for continuing the frictions muſt be determined by circumſtances. If the bubo gives way, they muſt be continued till it has entirely ſubſided, and perhaps longer, on account of the cauſe of it, a chancre, which may not yield ſo ſoon as the bubo. If it ſtill goes on to ſuppuration, the frictions may, or may not be continued; for I do not know for certain if any thing is to be gained by their continuance in this ſtate.

The quantity, here recommended, may affect the mouth; and this effect muſt alſo be regulated according to circumſtances.

III. OF

III. OF THE RESOLUTION OF BUBOES IN WOMEN.

When treating on the ſeat of buboes in women, I obſerved that two ſituations were peculiar to them, the others ſimilar to thoſe in men.

In the firſt and ſecond ſituations, eſpecially the firſt, the ſurface of abſorption, beyond the bubo, is by much too ſmall to be depended upon for receiving a ſufficient quantity of mercury to produce reſolution; but in the ſecond, that is, between the labia and thigh, the mercury may be rubbed in all about the anus and buttock, as all the abſorbents of thoſe parts probably paſs that way; we know at leaſt that they do not paſs into the pelvis by the anus, but go by the groin. Other means of introducing mercury muſt be recurred to, as is recommended in the caſe of men; but ſtill it will be proper to rub in on theſe ſurfaces as much as poſſible.

In the ſituations common to both ſexes, we have a larger field; yet as they are diviſible into three, the ſame obſervations hold good, and a ſimilar mode of practice is to be followed in women as in men.

IV. OF BUBOES IN OTHER PARTS.

As venereal buboes ariſe from other modes of application of the poiſon beſides coition, they are to be found in different parts of the body; but more frequently in the hands. They ariſe in the arm-pit from wounds in the hands or fingers being contaminated by venereal matter, and reduced to a chancre. In ſuch caſes it becomes neceſſary that the ointment ſhould be rubbed on the arm and fore-arm; but this ſurface may not be ſufficient, therefore we muſt apply it in another way, or to other parts, to produce its effects upon the conſtitution.

I have ſeen a true venereal chancre, on the middle of the lower lip, produce a bubo on each ſide of the neck under the lower jaw, juſt upon the maxillary gland. By applying ſtrong mercurial ointment to the under lip, chin, and ſwellings, they have been reſolved.

V. OF THE QUANTITY OF MERCURY NECESSARY FOR THE RESOLUTION OF A BUBO.

The quantity of mercury, neceſſary for the reſolution of a bubo, muſt be proportioned to the obſtinacy of the bubo; but care muſt be taken to ſtop ſhort of certain effects upon the conſtitution. If it be in the firſt ſituation, and yields readily to the uſe of half a dram of mercurial ointment, made of equal parts of quickſilver and hogs-lard, every night, and the mouth does not become ſore, or at moſt only tender, then it will be ſufficient to purſue this courſe till the gland is reduced to its natural ſize; and this probably will be a good ſecurity for the conſtitution, provided that the chancre, which may have been the cauſe of the bubo, heals at the ſame time. If the mouth is not affected in ſix or eight days, and the gland does not readily reſolve, then two ſcruples, or a dram, may be applied every night; and if there be no amendment, then more muſt be rubbed in; in ſhort, if the reduction is obſtinate, the mercury muſt be puſhed as far as can be done without a ſalivation.

If there be a bubo on each ſide, then there cannot be ſo much mercury applied locally to each; for the conſtitution moſt probably could not bear double the quantity which is neceſſary for the reſolution of one. But in ſuch caſes we muſt not ſo much attend to the ſoreneſs of the mouth as when there is but one; however, we muſt allow the buboes to go on to ſuppuration, rather than affect the conſtitution too much by the quantity of mercury; and therefore when there are two buboes, they are more likely to ſuppurate then where there is only one.

In the ſecond and third ſituation of buboes, if we find that moſt probably a ſufficient quantity of mercury does not paſs through them for their reſolution, it may be continued to be thrown in by the leg and thigh to act upon the conſtitution, as has been already obſerved. The quantity admitted in this way muſt be greater than what would be neceſſary if the whole could be made to paſs through the bubo. The mouth muſt be affected, and that in proportion to the ſtate and progreſs of the bubo.

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This method of reſolving buboes occurred to me at Belliſle, in the year 1761, where I had good opportunities of trying it upon the ſoldiers; and I can ſay with truth, that only three buboes have ſuppurated under my care ſince that time, and two of theſe were in one perſon, where a ſmall quantity of mercury had conſiderable effects on the conſtitution, and therefore a ſufficient quantity could not be ſent through the two groins for their reſolution; but in both caſes the ſuppurations were ſmall in compariſon to what they threatened to be.

Many buboes, after every attempt, remain ſwelled without either coming to reſolution or ſuppuration, but rather become hard and ſcirrhous. Such, I apprehend, were either ſcrofulous at firſt, or became ſo when the venereal diſpoſition was removed. The cure of them ſhould be attempted by hemlock, ſea-water poultices, and ſea-bathing, as will be further taken notice of.

VI. OF THE TREATMENT OF BUBOES WHEN THEY SUPPURATE.

After every known method has been uſed, buboes cannot in all caſes be reſolved, but come to ſuppuration. They then become more an object of ſurgery, and are to be treated in ſome reſpects like any other abſceſs. If it be thought proper to open a bubo, it ſhould be allowed to go on thinning the parts as much as poſſible. The great advantage ariſing from this is, that theſe parts having become very thin, loſe the diſpoſition to heal, which gives the bottom of the abſceſs a better chance of healing along with the ſuperficial parts; by this means too, a large opening is avoided, and the different modes made uſe of for keeping the ſkin from healing, till the bottom is healed, become unneceſſary.

It may admit of diſpute, whether the application of mercury ſhould be continued or not through the whole ſuppuration. I ſhould be inclined to continue it, but in a ſmaller quantity; for although the parts cannot ſet about a cure till opened, yet I do imagine that they may be better diſpoſed to it; and I think that I have ſeen caſes where ſuppuration has taken place

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although under the above-mentioned practice, that were very large in their inflammation, but very ſmall in their ſuppuration, which I imputed to the patient's having taken mercury in the before-mentioned way, both before and while ſuppuration was going on.

It has been diſputed more in this kind of abſceſs than in others, whether it ſhould be opened or allowed to burſt of itſelf; and likewiſe whether the opening ſhould be made by inciſion or cauſtic.

There appears to be nothing in a venereal abſceſs different from any other to recommend one practice more than another. The ſurgeon ſhould in ſome degree be guided by the patient. Some patients are afraid of cauſtics, others have a horror of cutting inſtruments; but when it is left wholly to the ſurgeon, and the bubo is but ſmall, I ſuppoſe, a ſlit with a lancet will be ſufficient; in this way no ſkin is loſt. But when a bubo is very large, in which caſe there is a large quantity of looſe ſkin, perhaps the cauſtic will anſwer better, both on account of its deſtroying ſome ſkin, and becauſe the deſtruction is attended with leſs inflammation than what attends inciſion. If done by a cauſtic, the lapis ſepticus is the beſt;* but it is not neceſſary to open every bubo, and perhaps it may be difficult to point out thoſe where opening would be of ſervice or neceſſary.

The bubo is to be dreſſed afterwards according to the nature of the diſeaſe, which, I have already obſerved, is often ſo complicated as to baffle all our ſkill. The conſtitution at the ſame time is to be attacked with mercury, either by applying it internally or externally; if externally, it ſhould be applied to that ſide, and beyond where the bubo is, as I before directed in treating of the reſolution of buboes; for it may have ſome influence on the diſeaſe in its paſſing through the part.

Mercury, in theſe caſes, anſwers two purpoſes; it aſſiſts the external applications to cure the buboes, and it prevents the effects of the conſtant abſorption of the venereal matter from the ſore.

* I once opened two buboes in the ſame perſon, one immediately after the other. The firſt was with the lapis infernalis, which gave him conſiderable pain, and therefore he would have the other opened with a lancet, as the pain would only be momentary. But it was great, and the ſoreneſs continued long, while there was no pain in the other, deadened by the cauſtic, after it had done its buſineſs.

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How far it is neceſſary to purſue the mercurial courſe with a view to prevention, it is not poſſible to determine, but it may be ſuppoſed that it is neceſſary to give the ſame quantity to prevent a diſeaſe that would cure one that has already taken place. It will be neceſſary to continue the courſe till the bubo is healed, or till it has for ſome time loſt its venereal appearance; but it may be difficult to aſcertain this laſt fact; therefore we muſt have recourſe to experience, not theory, and continue the courſe in general till the whole is healed, and even longer, eſpecially if the bubo heals very readily; for we find in many caſes that the conſtitution ſhall be ſtill tainted after all; however, ſome reſtrictions are here neceſſary; for I have already obſerved, that it often happens, that buboes aſſume other diſpoſitions beſides the venereal, which mercury cannot cure, but will even make worſe. It is therefore very neceſſary to aſcertain the diſtinction; which will be taken notice of.

CHAPTER

CHAPTER V.

OF SOME OF THE CONSEQUENCES OF BUBOES.

I Formerly obſerved, that the venereal diſeaſe is capable of bringing latent diſpoſitions or ſuſceptibilities into action. This is remarkably the caſe with buboes; and I believe the diſpoſition is more of the ſcrofulous kind than any other. Whether this ariſes from the buboes being formed in lymphatic glands, or not, is probably not eaſily determined.

It ſometimes happens, that theſe ſores, when loſing, or entirely deprived of the venereal diſpoſition, form into a ſore of another kind, and moſt probably of various kinds. How far it is a diſeaſe ariſing from a venereal taint, and the effects of a mercurial courſe jointly, is not certain; but moſt probably theſe two have ſome ſhare in forming the diſeaſe. If this idea of it were juſt, it would become a ſpecific diſeaſe and be reducible to one method of cure; but I ſhould ſuſpect that either the conſtitution or the part hath ſome, if not the principal, ſhare in it; that is, the parts fall into a peculiar diſeaſe independent of the conſtitutional diſeaſe or method of cure; for if it aroſe out of the two firſt entirely, we might expect to meet with it oftner. So far as the conſtitution or the part has a ſhare in forming this diſeaſe, it becomes more uncertain what the diſeaſe is, becauſe it muſt in ſome degree partake of the conſtitution or nature of the part.

Such diſeaſes make the cure of the venereal affection much more uncertain, becauſe when the ſore becomes ſtationary, or the mercury begins to diſagree, we are ready to ſuſpect, that the virus is gone; but this is not always the caſe; the virus is perhaps only leſs powerful than the new formed diſeaſe, and as it were lies dormant, or ceaſes to act, and when the other becomes weaker, the venereal influence begins to ſhow itſelf again.

The proper treatment, in ſuch caſes, is to attack the predominant diſeaſe; but ſtill the difficulty is to find out the diſeaſe, and to know when it

it is or is not venereal. The following caſe explains this difficulty very well.

A gentleman had a very large venereal bubo, which was opened. He took a great deal of mercury for about two months, but, I ſuſpect, not in ſufficient doſes, which produced a mercurial habit. The bubo had no diſpoſition to heal, and I was conſulted. From the account he gave me, I ſuſpected that he had then too much of a mercurial habit to receive at this time any further good from that medicine. I therefore adviſed him to uſe a good nouriſhing diet for near a month; after that I put him upon a briſk mercurial courſe by friction; and the parts put on a better appearance. This courſe he continued for near two months, and then the ſore, although much mended, began to be ſtationary. I did now conceive that the venereal action was deſtroyed, and therefore immediately left off the mercurial courſe and put him upon a milk diet, and ſent him into the country. But not gaining much ground, he had a ſtrong decoction of the ſarſaparilla with mezereon given him, which, although continued for above a month, produced little or no effect. I alſo gave him the cicuta as much as he could bear, with the bark almoſt the whole time, without effect: new ſinuſes formed, which were opened, and the ſore became extremely irritable, with thickened lips. The dreſſings were poultices made with the juice of hemlock, ſea-water, opium, and a gentle ſolution of lunar cauſtic; but nothing ſeemed to affect it. I ſuſpected ſcrofula, and therefore propoſed he ſhould bathe in the ſea; but this then could not be done. Theſe different treatments, after mercury had been left off, took up about four months without the leaſt benefit. Being doubtful whether there might not be ſtill ſomething venereal in the ſore, eſpecially as appearances were growing worſe, and it was now four months ſince he had taken any mercury, I was inclined to try it once more, and ſent him two portions of ointment, half an ounce each, to rub in in two nights. He had caught a little cold, and therefore did not rub in the mercury the two evenings as ordered; and called upon me the third day and told me he was much better; the ſore now became eaſy; the watery or tranſparent inflammation began to ſubſide; the lips became flatter and thinner; and the edges of the ſore began to heal. I then deſired him not to rub in the ointment, but wait a little. In eight

or ten days the ſore had contracted to three quarters of its former ſize, and had all the appearance of a healing ſore.

Quere: What concluſions ſhould be drawn from this caſe? I think the following; that the virus may be gone, although the ſore may have no diſpoſition to heal: therefore we are not to look upon the not healing of a bubo as a ſign of the preſence of the original diſeaſe. Secondly; that the ſarſaparilla, mezereon, cicuta, and the bark, will not ſucceed in all ſuch caſes; and thirdly, that ſome of theſe diſeaſes are capable of wearing out the unhealthy diſpoſition of themſelves, and that we ſhould not be too ready to attribute cures to our treatment; for if the mercury had been rubbed in, and the ſame effects had ſtill taken place, I ſhould then have certainly purſued the mercury with vigor, and attributed the cure to it; but I ſhould not have reſted here: I ſhould have related the caſe, as an inſtance of the diſeaſe continuing after repeated courſes of mercury, and ſhould have contended that it is neceſſary in ſuch caſes, where the mercury appears to loſe its power, and even do harm, to wait, and ſeaſon the conſtitution to ſtrength, and the loſs of the mercurial habit; and that even four months are ſometimes neceſſary for this purpoſe; after which we muſt begin again to give mercury.

A gentleman had a common gonorrhœa, which was ſevere. I gave him an injection of a grain of corroſive ſublimate in eight ounces of water, with a few mercurial pills. After having continued the injection for ten, or twelve days, without any viſible benefit, I gave it as my opinion that it would be of no ſervice to continue it any longer; and therefore deſired he would be quiet for a little time. About this time a ſwelling in each groin took place, and ſuppoſing them to be venereal, I ordered mercurial ointment to be rubbed into both the legs and thighs to reſolve them if poſſible. He appeared to be leſs uneaſy about the buboes than he was about the gonorrhœa; but I told him that the cure of that complaint would be inſenſibly involved in the reſolution of the buboes. I ſpoke too confidently of my power, with reſpect to the reſolution of the buboes, for they both ſuppurated; although the ſuppuration was ſmall in compariſon to the magnitude of the buboes when they firſt inflamed. The frictions were left off.

While

While we were attempting to reſolve the buboes, he got well of the gonorrhœa. The ſkin, covering the buboes, became thin; they were both opened, one with a cauſtic, the other with a lancet; he then was ordered to rub in mercury again on the thighs and legs for their cure. They began ſoon to look well, and to cloſe faſt, but when about half healed they became ſtationary. I ſuſpected that a new diſeaſe was forming. On continuing the frictions a little longer, they began to inflame and ſwell anew, and a ſuppuration took place about half an inch above each of the firſt ſuppurations, which broke into the firſt. I left off the mercury immediately upon their inflaming, and ſaid that now a new diſeaſe had formed. I ordered poultices made with ſea-water to be applied, and alſo a decoction of ſarſaparilla to be taken; but this appeared not to be ſufficient for the cure of this new diſeaſe. I then ordered him to go into the tepid ſea-bath every evening, the heat of the water to be about ninety degrees. By the time he had been in the bath four times, the inflammation and ſwelling had very much abated, and the firſt ſores, or original buboes, were beginning to heal. He went on with the bathing every evening for about three weeks, when the ſores rather began to look worſe; I then ſuſpected that the venereal diſpoſition was become predominent; and I ordered the friction as before. In about a fortnight the firſt buboes healed, but the ſecond ſuppurations were not yet healed; then I ſuppoſed it to be entirely the new formed diſeaſe, and he went into the country, where I deſired he might go into the open ſea every day, as he then could have an opportunity, which he did, and got perfectly well, and has continued ſo.

This caſe plainly ſhows that there was another diſpoſition formed beſides the venereal, which was put into action by the venereal irritation.

I have ſeen ſome buboes moſt exceedingly painful and tender to almoſt every thing that touched them, and the more mild that the dreſſings were, the more painful the parts became.

In ſome the ſkin ſeems only to admit the diſeaſe; ulceration going on in the ſurrounding ſkin, while a new ſkin forms in the centre, and keeps pace with the ulceration, forming an irregular ſore like a wormeaten groove all round. This, like the eriſypelatous inflammation, as alſo ſome others, appears to have only the power of contaminating the parts that have not yet

come into action; and thoſe that have already taken it ſeem to loſe the diſeaſed diſpoſition, and heal readily.

In ſome they ſpread to an amazing extent, as the following caſe ſhows, the circumſtances of which are very remarkable.

A young gentleman, aged eighteen years, in conſequence of a venereal infection, had two buboes, which were both opened. They were treated in the uſual manner, and at firſt put on a favourable appearance; but, when they were nearly healed, they began to ulcerate at their edges, and ſpread in all directions, riſing above the pubes almoſt to the navel, and deſcending upon each thigh. His nights became reſtleſs, and his general health was affected. A great variety of medicines were tried, particularly mercury in different forms, with little or no effect. Extract of hemlock did more good than any thing elſe, and was taken in unuſual quantities. An ounce was ſwallowed in the courſe of the day for ſome time, which was afterwards increaſed to an ounce and an half, two ounces, and even two ounces and an half. It produced indiſtinct viſion and blindneſs, loſs of the voice, falling of the lower jaw, a temporary palſy of the extremities, and once or twice a loſs of ſenſation; and notwithſtanding he was almoſt every night in a ſtate, as it were, of complete intoxication from the hemlock, his general health did not ſuffer, but, on the contrary, kept pace in its improvement with the ulcers. They could not however be healed by the hemlock; and among many other things, Æthiops mineral, and Plummer's pill were liberally given, ſeemingly with advantage. Recourſe was had to the hemlock from time to time. A great many different kinds of dreſſings were made trial of, none of which were found to exceed dry lint. The ulcers were nearly all healed, after having tormented him upwards of three years, when committing ſome irregularities in diet, and the ſores getting worſe, he returned to the extract of hemlock, which he had for ſome time laid aſide, and of himſelf ſwallowed in the courſe of the morning ten drams. This quantity was only the half of what he had formerly taken in twenty-four hours, but his conſtitution had been at that time gradually habituated to the medicine. The ten drams produced great reſtleſsneſs and anxiety; he dropt inſenſible from his chair, fell into convulſions, and expired in two hours.

To

To return to the cure of buboes: where they only become ſtationary and appear to have but little diſpoſition to ſpread, (which is moſt common) and where perhaps a ſinus or two may be found running into them from ſome other gland, I have often ſeen them give way to hemlock, ſooner than to any thing I am acquainted with, eſpecially if joined to the bark. If the hemlock is applied both internally and externally it anſwers better.

Sarſaparilla is often of ſingular ſervice here, as well as in other caſes ariſing ſeemingly from the ſame cauſe; and I have ſeen ſea-bathing of great ſervice, as alſo ſea-water poultice.

At the Lock Hoſpital they uſe goldrefiners water as an application, which is of ſervice in ſome caſes. Dr. Fordyce recommends the juice of oranges to be drunk in large quantities, which I have ſeen good effects from in ſome caſes. The mezereon is in ſome inſtances of ſingular uſe.

PART

PART VI.

CHAPTER I.

OF THE LUES VENEREA.

THE lues venerea, I have already obſerved, ariſes in conſequence of the poiſonous matter being abſorbed and carried into the common circulation. This form of the diſeaſe, which I have called the conſtitutional,* would appear to be much more complicated, both in the different ways in which it may be caught, and in its effects when caught, than either a gonorrhœa or chancre. It generally ariſes from the local complaints, before taken notice of, the matter being abſorbed and carried into the conſtitution. The matter, however, appears to be capable of being taken into the conſtitution by ſimple application, without firſt having produced either of the before-mentioned local effects, as I obſerved in treating of the formation of the bubo; but this ſeems to be only when it is applied to ſome particular parts of our body, ſuch as may be called a half internal ſurface, as the glans penis. I think, it is not capable of being received by the abſorbents of the ſound ſkin; but this is matter only of opinion.

* The term *conſtitutional* is, perhaps, not ſtrictly a proper term; for by conſtitutional diſeaſe ſtrictly, I would underſtand that, in which every part of the body is acting in one way, as in fevers of all kinds, either ſympathetic or original; but the venereal poiſon appears to be only diffuſed through the circulating fluids, and as it were, to force certain parts of the body to aſſume the venereal action, which action is perfectly local, and takes place in different parts in regular ſucceſſion of ſuſceptibilities; there are but few parts therefore acting at the ſame time; and a perſon may be conſtitutionally affected in this way, and yet almoſt every function may be perfect.

It may likewiſe be received into the conſtitution by being applied to common ulcers, although not neceſſarily rendering theſe ulcers themſelves venereal; alſo by wounds, as has been obſerved; but, I believe, always previouſly producing ulceration in the wound.

Many other modes of infection have been ſuppoſed, but, I believe, erroneouſly; ſuch ſuppoſitions moſt probably having taken their riſe from ignorance or deceit, two great ſources of error in this diſeaſe.

It is moſt likely, that contamination takes place about the beginning of the local complaints, eſpecially when that is a chancre; for there is in moſt caſes leſs chance of its happening afterwards, becauſe the patient commonly flies to medicine, which generally becomes a prevention of contamination. For if it could take place through the whole time of the cure, we ſhould have the parts contaminated at different periods, coming into action at different times, each according to its ſtated time, although in ſimilar parts both in their nature and other circumſtances; but as theſe ſimilar parts do not vary much in the time of coming into action, it is reaſonable to ſuppoſe that they were contaminated at, or near, the ſame time, and therefore that no contamination takes place in the time of the cure, although we may ſuppoſe that the power of abſorption is equally ſtrong then as at any other time.

In caſes of contamination from a gonorrhœa, where no mercury has been taken, we might expect this irregularity in ſimilar ſtructures; but as contamination ſo ſeldom takes place in this way, we have not a chance of great variety from ſuch; however, it would be worth while to aſcertain the matter, which from a great many caſes might be done.

Without being very exact in aſcertaining the different proportions in thoſe who have the lues venerea originating from the three ſeveral modes above deſcribed, I think we may venture to ſay from general practice or experience, that where one contracts it from the firſt cauſe, that is, where no local effects have been produced, an hundred have it from the ſecond, or gonorrhœa; and where one has it from the ſecond, an hundred have it from the third, or chancre; and perhaps not one in five hundred who have connection with venereal women, have it in the firſt way, and not one in an hundred have it from the ſecond; while not one in an hundred would

eſcape

eſcape it from the third, if the means of prevention were not made uſe of in the common method of cure of the chancre.

I. OF THE NATURE OF THE SORES OR ULCERS PROCEEDING FROM THE LUES VENEREA.

In conſequence of the blood being contaminated with real venereal pus, it might naturally be ſuppoſed, that the local effects ariſing therefrom would be the ſame with the original which produced them; but from obſervation and experiment I have reaſon to believe that this is not ſo.

In conſidering this ſubject, we may firſt obſerve, that local effects, from the conſtitution, are all of one ſpecies, that is ulcers, let the ſurface upon which they appear be what it will, whether the throat or common ſkin; which is not the caſe in the local application of the matter in gonorrhœa and chancre; for there I obſerved, that it produced effects according to the nature of the ſurfaces. Now if the matter, when in the conſtitution, were to act upon the ſame ſpecific principles with that which is applied, we ſhould have gonorrhœas when it attacks a canal; ſores or chancres when it attacks other ſurfaces; but it has never been yet known to produce a gonorrhœa from the conſtitution, though this has indeed been ſuſpected. For ſome gonorrhœas, the origin of which has not been clear, and which have not eaſily given way to the common methods of cure, have been ſuppoſed to have ariſen from the conſtitution. Whenever the diſeaſe affects the mouth and noſe, it has always been looked upon as producing a true chancre; yet even here I find that ſuch ulcers in their firſt appearance are very different from chancres. The true chancre, I obſerved, produces conſiderable inflammation, which of courſe brings on quickly ſuppuration, attended often with a great deal of pain; but the local effects, from the conſtitution, are ſlow in their progreſs, attended with little inflammation, and are ſeldom or ever painful, except in particular parts. However, this ſluggiſhneſs in the effects of the poiſon is more or leſs according to the nature of the parts which become diſeaſed; for when the tonſils, uvula, or noſe, are affected, its progreſs is rapid, and the ſores have more of the

chancre in their appearance than when it affects the ſkin; yet I do not think that the inflammation is ſo great in them as in chancres that are ulcerating equally faſt.

It has been ſuppoſed that even all the ſecretions from the contaminated blood could be affected ſo as to produce a like poiſon in them; and as the parts of generation are thrown in the way of receiving it, when freſh contracted, ſo they ſtill lie under the cenſure of having it returned upon them from the conſtitution. Hence it has been ſuppoſed that the teſticles and veſiculæ ſeminales may be affected by the diſeaſe; that the ſemen may become venereal, may communicate the diſeaſe to others, and, after impregnation, may even grow into a pocky child: but all this is without foundation; otherways, when a perſon has the lues venerea, no ſecreting ſurface could be free from the ſtate of a gonorrhœa, nor could any ſore be other than venereal. Contrary to all which, the ſecretions are the ſame as before; and if a ſore is produced by any other means in a ſound part, that ſore is not venereal, nor the matter poiſonous, although formed from the ſame blood.

The ſaliva in the caſe of a mad dog, being a natural ſecretion rendered poiſonous, may be brought as an argument in contradiction to this theory; yet it is eaſily accounted for, and might be produced rather as an argument in ſupport of it. In the dog, there is an irritation peculiar to the hydrophobia in the ſalivary glands; but the other and natural ſecretions of the ſame dog are not capable of giving this infection, becauſe they are not ſuſceptible of the ſame ſpecific irritation.

The breath and ſweat are ſuppoſed to carry along with them contagion. The milk of the breaſt is ſuppoſed to be capable of containing venereal poiſon, and of affecting the child who ſucks it; but there are ſeveral reaſons which overturn theſe opinions. Firſt, we find that no ſecretion is affected by this poiſon, excepting where the ſecreting organs have been previouſly affected by venereal inflammation or irritation, or its ſpecific mode of action. Again, if they were contaminated ſo as to produce matter ſimilar to that of an ulcer in the throat, ſuch matter would not be poiſonous, nor poſſeſs a power of communicating the diſeaſe, as will be explained more fully hereafter. Further, true venereal matter, even when taken into the ſtomach, does

does not affect either the ſtomach or conſtitution, but is digeſted; as was evident in the two following caſes.

A gentleman, who had chancres which diſcharged largely, uſed to waſh the parts with milk in a tea-cup with ſome lint, and generally let the lint lie in the cup with the milk. A little boy in the houſe ſtole the milk and drank it: but whether or not he ſwallowed the lint was not known. No notice was taken of this by the gentleman, either to the family or the boy; and attention, unknown to the family, was paid to the boy even for years, but nothing happened that could give the leaſt ſuſpicion of his having been affected either locally in the ſtomach or conſtitutionally.

A gentleman had a moſt violent gonorrhœa, in which both the inflammation and the diſcharge were remarkably great. He had alſo a chordee, which was very troubleſome at night. In order to cool the parts, and keep them clean, he had a ſmall baſon of milk by the bed-ſide, in which, when the chordee was troubleſome, he got up and dipped or waſhed the penis. This operation he frequently repeated during the night. Under ſuch complaints he allowed a young lady to ſleep with him. Her cuſtom was to have by the bed-ſide a baſon of tea to drink in the morning before ſhe got up; but unfortunately for the lady, ſhe drank one morning the milk inſtead of the tea. This was not known till ſhe got up, which was five or ſix hours afterwards. I was ſent for directly, and in the mean time ſhe endeavoured to vomit, but could not. I ordered ipecacuanha, which proved ſlow in its operation. She vomited, but it was more than eight hours after drinking the milk and water, and what came up was nothing but ſlime, mucus, or water, the milk being digeſted. I was attentive to what might follow; but nothing uncommon happened, at leaſt for many months.

It is alſo ſuppoſed, that a fœtus, in the womb of a pocky mother, may be infected by her. This I ſhould doubt very much, both from what may be obſerved of the ſecretions, and from finding that even the matter from ſuch conſtitutional inflammation is not capable of communicating the diſeaſe. However, one can conceive the bare poſſibility of a child being affected in the womb of a pocky mother, not indeed from the diſeaſe of the mother, but from a part of the ſame matter which contaminated the mother, and was abſorbed by her; and whether irritating her ſolids to action

or not, may poſſibly be conveyed to the child, pure as abſorbed; and if ſo it may affect the child exactly in the ſame way it did or might have done the mother. This idea has been carried ſtill further; for it has been ſuppoſed that ſuch a contaminated child could contaminate the breaſts of a clean woman by ſucking her; the poſſibility of which will be conſidered preſently. We may obſerve, that even the blood of a pocky perſon has no power of contaminating, and is not capable of giving the diſeaſe to another even by inoculation; for if it were capable of irritating a ſound ſore to a venereal inflammation, no perſon that has this matter circulating, or has the lues venerea, could eſcape having a venereal ſore whenever he is bled or receives a ſcratch with a pin, the part ſo wounded turning into a chancre. For if venereal matter be on the point of the lancet, or on the point of the pin, the punctures muſt become chancres.

II. OF THE MATTER FROM SORES IN THE LUES VENEREA COMPARED WITH THAT FROM CHANCRES AND BUBOES.

When the matter has affected the conſtitution, it from thence produces many local effects on different parts of the body, which are in general a kind of inflammation, or at leaſt an increaſed action occaſioning a ſuppuration of its own kind. It is ſuppoſed, that the matter, produced in conſequence of theſe inflammations, ſimilar to the matter from a gonorrhœa or chancre, is alſo venereal and poiſonous. This I believe till now has never been denied; and, upon the firſt view of the ſubject, one would be inclined to ſuppoſe that it really ſhould be venereal: for firſt the venereal matter is the cauſe; and again the ſame treatment cures both diſeaſes; thus mercury cures both a chancre and a lues venerea; however this is no deciſive proof, as mercury cures many diſeaſes beſides the venereal. On the other hand there are many ſtrong reaſons for believing that the matter is not venereal. There is one curious fact, which ſhows it is either not venereal, or if it be, that it is not capable of acting in ſome reſpects on the ſame body or ſame ſtate of conſtitution as that matter does, which is produced from a chancre

or

or gonorrhœa. The pus from theſe latter, when abſorbed, generally produces a bubo, as has been deſcribed; but we never find a bubo from the abſorption of matter from a pocky ſore; for inſtance, when there is a venereal ulcer in the throat, we have no buboes in the glands of the neck; when there are venereal ſores on the arms, or even ſuppurating nodes on the ulna, there are no ſwellings of the glands of the arm-pit; although ſuch will take place if freſh venereal matter is applied to a common ſore on the arm, hand, or fingers. No ſwelling takes place in the glands of the groin from either nodes or blotches on the legs and thighs. It may be ſuppoſed that there is no abſorption from ſuch ſores; but I think we have no grounds for ſuch ſuppoſition. Its mode of irritation, or the action of the parts affected is very different from what happens in the chancre, gonorrhœa or bubo, being hardly attended with inflammation, which in them is generally violent.

It might be ſuppoſed that a conſtitution truly and univerſally pocky, is not to be affected locally by the ſame ſpecies of matter; but from the following experiments it would appear that matter from a gonorrhœa or chancre is capable of affecting a man locally that is already poxed; and that matter from pocky ſores, ariſing from the conſtitution, has not that power.

A man had been affected with the venereal diſeaſe a long time, and had been ſeveral times ſalivated, but the diſeaſe ſtill broke out anew. He was taken into St. George's Hoſpital, affected with a number of pocky ſores; and before I put him under a mercurial courſe, I made the following experiment. I took ſome matter from one of the ſores upon the point of a lancet, and made three ſmall wounds upon the back where the ſkin was ſmooth and ſound, deep enough to draw blood. I made a wound ſimilar to the other three, with a clean lancet, the four wounds making a quadrangle; but all the wounds healed up, and none of them ever appeared afterwards.

This experiment I have repeated more than once, and with the ſame reſult. It ſhows that a pocky perſon cannot be affected locally with the matter proceeding from the ſores produced by the lues venerea. But to ſee how far real venereal matter was capable of producing chancres on a pocky perſon, I made the following experiment.

A man

A man, who had venereal blotches on many parts of his ſkin, was inoculated in ſound parts with matter from a chancre, and alſo with matter from his own ſores. The wounds inoculated with the matter from the chancres became chancres; but the others healed up. Here then was a venereal conſtitution capable of being affected locally with freſh venereal matter. This experiment I have likewiſe repeated more than once, and always with the ſame effect.

I ordered a perſon, at St. George's Hoſpital, to be inoculated with the matter taken from a well marked venereal ulcer on the tonſil, and alſo with matter from a gonorrhœa, which produced the ſame effects as in the preceding experiment; that is, the matter from a gonorrhœa produced a chancre, but that from the tonſil had no effect.

A woman, aged twenty-five, came into St. George's Hoſpital, Auguſt 21, 1782, with ſores on her legs, and blotches over her body. Her huſband gave her the venereal diſeaſe, December 1781. Her ſymptoms then were a diſcharge from the vagina, and a ſmall ſwelling of the glands of the groin, which were painful. She had taken ſome pills, ſuppoſed to be mercurial. February 1782, about three months after being infected, the diſcharge ſtopped; but the ſwelling, which had been gradually increaſing ever ſince its firſt appearance, had now ſuppurated. She applied ſome ointment to it which was brought to her by her huſband, and in two months it got well, that is, in April 1782. After the bubo got well, a diſcharge from the vagina came on, for which ſhe took more of the ſame pills ſhe had taken before. After this time blotches came out over her whole body; ſome about her legs, under her arms, and upon her nipples, ulcerated.

Twins, which ſhe brought forth at eight months, in March 1782, at the time the bubo was healing, had blotches upon them at their birth, and died ſoon after.

Another girl, about two years old, whom ſhe ſuckled, was alſo covered with blotches when ſhe came to the hoſpital.

To aſcertain whether her ſecondary ulcers were infectious, that is, whether the matter of them would have the ſpecific effects of venereal matter, ſhe was inoculated with ſome matter from one of her own ulcers, and with

ſome

ſome matter from a bubo of another perſon where mercury had not been uſed. This was done, September 18, 1782. September 19, the puncture, where ſhe was inoculated with her own matter, gave her pain three hours from the time of inoculation, and the day following inflamed a little. The other had not then inflamed at all.

September 20, both the punctures had ſuppurated and had the appearance of a ſmallpox puſtule; they ſpread conſiderably, and were attended with much inflammation. That from her own matter healed with common poultices, and ointments without mercury; but the other, although treated in a ſimilar way, continued in the ſame ſtate, attended with much pain and inflammation.

September 22, the child was inoculated with ſome matter from one of its own ulcers, and with ſome common pus. The punctures both inflamed in a ſmall degree; but neither of them ſuppurated.

The mother and the child went into the ward appropriated to ſalivation, October 21, 1782. The child took no mercury. It was ſuppoſed that its gums became a little ſore; and the blotches got well.

During the time that the mother was uſing mercury, the ulcer from inoculation began to get well, and all her venereal ſymptoms diſappeared. What ſhall we ſay to this caſe? Were the blotches venereal? There was every leading circumſtance to make us think ſo; and our opinion was ſtrengthened by the method of cure. If they were venereal, my opinion that the conſtitutional appearances of the diſeaſe do not produce matter of the ſame ſpecies that produced them, is confirmed. If they were not venereal, then we have no abſolute rule by which to judge in ſuch caſes.

It has been ſuppoſed and aſſerted from obſervation, that ulcers in the mouths of children from a conſtitutional diſeaſe, which conſtitutional diſeaſe has been ſuppoſed to be derived from the parent, have produced the ſame diſeaſe upon the nipples of women who had been ſucked by them; that is, the children were contaminated either by their mothers or fathers having the diſeaſe in form of a lues venerea, of which I have endeavoured to ſhow the impoſſibility. If, however, it were poſſible to contaminate once in this way, it would be poſſible to contaminate for ever.

How

How far the obſervations, upon which the before-mentioned opinion is founded, have been made with ſufficient accuracy to overturn thoſe which I made with a view to aſcertain the truth, I know not. But, from a more accurate inveſtigation of ſome of thoſe caſes, which were by moſt of the faculty called venereal, they appeared evidently not to be ſuch. To ſay what they were, would lead us into the conſideration of other diſeaſes. The following caſe may leſſen our faith in the hiſtories of ſuch as have been ſuppoſed to be venereal.

Before I deſcribe the caſe, I ſhall firſt mention ſome of the circumſtances leading to it.

A child was ſuppoſed to have infected its nurſe with the venereal diſeaſe. The parents had been married about twelve years, when this child was born. The father was a very fond huſband, and the mother a mild and moſt affectionate woman. The father had a venereal gonorrhœa two years before he married, that is, fourteen years before the birth of the child. About nine months after marriage they had a child, and afterwards a ſecond, both of whom were extremely healthy at birth, and ſtill continue ſo. The mother fell into a weakly ſtate of health and miſcarried of her third child at the end of five months. The fourth child was born at ſeven months, but was puny, weak, and had hardly any cuticle when born. It was immediately after birth attacked with a violent dyſentary. It died in a few days and was opened by me. The whole ſkin was almoſt one excoriated ſurface. The inteſtines were much inflamed and thickened.

With her fifth child, from great care, ſhe went eight months, and it was now hoped that ſhe might go the full time, and alſo that this child might be more healthy than the former. When ſhe was delivered, the child was very thin, but free from any viſible diſeaſe.

Some days after birth it became bliſtered in a vaſt number of places on its body, which bliſters were filled with a kind of matter, and, when they broke, diſcharged a thinniſh pus. The inſide of the mouth was in the ſame condition. Bark was given to the nurſe. Bark, in milk, was given to the child by the mouth; and it was fomented with a decoction of bark; but, in about three weeks after birth, it died.

Some

Some weeks after the death of the child, the nurſe's nipple, and the ring round the nipple, inflamed, and ſores or ulcers were formed with a circumſcribed baſe.* They were poulticed, but without benefit. She alſo complained of a ſore throat; but the ſenſation, ſhe complained of, was ſo low in the throat that no diſeaſe could be ſeen. A ſwelling took place in the glands of the arm-pit, but they did not ſuppurate. She applied to a phyſician, and according to the account which ſhe gave, he pronounced that her diſeaſe was venereal, and that ſhe had given ſuck to a *foul* child; and he ordered ten boxes of mercurial ointment to be rubbed in on her legs and thighs, eight of which had been uſed, when I ſaw her; and then her mouth was become extremely ſore.

Theſe circumſtances came to the ears of the family, and an alarm took place. The huſband went from ſurgeon to ſurgeon, and from phyſician to phyſician, to learn if it was poſſible for him to have the diſeaſe for fourteen years, and never to have perceived a ſingle ſymptom of it in all that time: or if it was poſſible he could get children with the diſeaſe now, when the two firſt were healthy. He alſo wanted to know, if it was poſſible for his wife to have caught the diſeaſe from him under ſuch circumſtances; and alſo, if ſhe could breed children with this diſeaſe, although ſhe herſelf never had a ſingle ſymptom of it. If we take all the above-mentioned circumſtances as facts, the concluſion is, that it was impoſſible there could be any thing venereal in the caſe; but as they could not be abſolutely proved to be facts, there muſt remain a doubt in the mind, a ſomething ſtill to be proved.

Now let us conſider the reſult of the caſe. The nurſe's mouth was become extremely ſore from the mercury when I firſt ſaw her. I deſired that Mr. Pott might ſee her along with me; and it was the opinion of us both, that the ſores on the nipple, and around it, were not venereal; but it was alledged, that, as ſhe had taken mercury, their not having a venereal appearance now was owing to that cauſe. The bark was given, as alſo the ſarſaparilla, but the ſores did not heal, nor did they become worſe; nor was the mouth better by leaving off the mercury. I ordered the hemlock, but that appeared to have no effect. In the mean time eruptions broke out

* She had but one breaſt that gave milk.

on the ſkin. The ſkin of the hands and fingers peeled off; the nails of both fingers and toes ſeparated; and ſores formed about their roots, which were all ſuppoſed (by many) to be venereal. But ſome of them appearing, while the conſtitution was full of mercury, and others diſappearing without any further uſe of that medicine, I judged that they were not venereal. We ſuſpected that her mode of living was ſuch as contributed greatly to the continuance of her firſt complaint, and gave riſe to the new ones; for ſhe looked dejected and ſallow. She was deſired to go into an hoſpital, which ſhe did. As ſoon as ſhe got into a warm bed, and had good wholeſome food, ſhe began to mend, and in about five or ſix weeks ſhe had become fat and almoſt well; the ſore only about the root of the nail of the great toe had not healed; but that appeared now to be owing to the root of the nail being detached, therefore acting as an extraneous body. She came out of the hoſpital before this toe had got well; and returning to her old poor mode of living, ſhe had a return of the ſoreneſs in the mouth; however, ſhe mended at laſt without the uſe of more mercury.

This caſe I ſhall further conſider when on diſeaſes reſembling the venereal.

The following caſe will further prove that we often ſuſpect complaints to be venereal when they really are not.

A gentleman had for ſome time blotches on his ſkin. The face, arms, legs and thighs, were in many places covered with them; and they were in their different ſtages of violence. In this ſituation he applied to me; and I muſt own they had a very ſuſpicious appearance. I aſked him what he ſuppoſed theſe blotches were; he ſaid he ſuppoſed them to be venereal. I aſked him when he had a recent venereal complaint; he told me not for above twelve months. I then aſked him how long he had had the blotches; and the anſwer was, above ſix months. As this was a ſufficient time for making obſervations upon them that might aſcertain better than the mere appearance what they were, I aſked him if any of the blotches, that came firſt, had diſappeared in that time; and he ſaid many; I deſired to ſee where thoſe had been; and on examination I found only a diſcoloured ſkin, common to the healing of ſuperficial ſores. I then declared to him that they were not venereal, for if they had ariſen from that ſource, none of them would have diſappeared. He now informed me that he had been taking mercury; and

this

this information obliged me to have recourſe to further inquiries; and I therefore aſked him, whether, while he was taking mercury, many of the firſt got well? The anſwer was, yes. And was the cure of thoſe imputed to mercury? The anſwer was again in the affirmative. I then aſked him, if, while he was taking the mercury, which appeared to have cured ſome, thoſe, that now remained, aroſe? Yes. My next queſtion was, how long had he taken mercury? He ſaid for ſix months. I then declared they were not, nor ever had been venereal. I aſked him, what was now the opinion of his ſurgeon? He ſaid, that his opinion ſtill was, that they were venereal, and that he ſhould go on with the mercury. I adviſed him to take no medicines whatever; to live well, avoiding exceſs, and to come to me in three weeks; which he did, and then he was perfectly well, only the ſkin was ſtained where the blotches had been. He now aſked me, what he was next to do? I told him he might go to the ſea and bathe for a month. This he did, and returned well and healthy, and has continued ſo.

III. OF THE LOCAL EFFECTS ARISING FROM THE CONSTITUTION CONSIDERED AS CRITICAL—SYMPTOMATIC FEVER.

How far the eruptions or local effects of this diſeaſe, ariſing from the conſtitution, are an effort of Nature to clear herſelf of this diſeaſe, is not certain. I obſerved, that a gonorrhœa might be produced by a general law in the animal œconomy, by which it endeavours to relieve itſelf of the irritation by producing a diſcharge; and that in chancres a breach is made in the ſolids for the ſame purpoſe, although this purpoſe is not anſwered in either; Nature not having a proviſion againſt this poiſon. But how far a ſimilar attempt takes place in a lues venerea I do not know; and if it was upon the ſame principle, the ſame reaſon might be expected to be given, why the conſtitution is not capable of relieving itſelf in the preſent inſtance that I gave, when treating of the primary affections, becauſe in this as it was in the other, the matter formed might be ſuppoſed to be venereal; and therefore by being abſorbed by the very ſurface which produced it as in a

chancre, it might keep up the conſtitutional diſeaſe. If this were really the caſe, it would be very different from many other ſpecific diſeaſes; for the reaſon why many ſpecific diſeaſes cure themſelves, is that the irritation cannot laſt beyond a ſtated time; and alſo that in many, the patient is never ſuſceptible of the ſame diſeaſe a ſecond time, as in the ſmallpox. If this was not the caſe, a perſon once having the ſmallpox, would always have them; for according to one ſuppoſition, that abſorption of its own pus keeps up the diſeaſe; and according to another, that the irritation never wears itſelf out, the patient would either never be free, or have them repeated for ever; for his own matter would give the diſeaſe a ſecond time, a third time, and ſo on.* But the venereal matter, when taken into the conſtitution, produces an irritation which is capable of being continued independent of a continuance of abſorption; and the conſtitution has no power of relief, therefore a lues venerea continues to increaſe. This circumſtance is perhaps one of the beſt diſtinguiſhing marks of the lues venerea, for in its ulcers and blotches it is often imitated by other diſeaſes, which not having this property will therefore heal and break out again in ſome other part. Diſeaſes in which this happens, ſhow themſelves not to be venereal; however, we are not to conclude, becauſe they do not heal of themſelves and give way only to mercury, that therefore they are venereal, although this circumſtance joined to others gives a ſtrong ſuſpicion of their being ſuch.

When the parts are contaminated by the venereal poiſon, we commonly find fever, reſtleſſneſs, or want of ſleep, and often headach; but I believe that theſe ſymptoms are rather peculiar to the diſeaſe, when the ſecond order of parts, the perioſteum and bones, are affected, although they are ſometimes found of the firſt. Do theſe ſymptoms ariſe from the local irritations affecting the conſtitution? And are they merely ſympathetic? Whatever the immediate cauſe may be, they never go off till the local irritations are removed. This fever at firſt has much the appearance of the rheumatic fever; and after a time it partakes a good deal of the nature of the hectic.

* This circumſtance alone is a ſtrong proof that people cannot have the ſmallpox twice, at leaſt at any diſtance of time between, if they had fair eruptions the firſt time; for if the conſtitution was not ſo altered as not to be ſuſceptible of this irritation a ſecond time, a perſon would have them immediately upon the going off of the firſt.

Theſe

Theſe ſymptoms often take place independent of, or unattended by, any local action; and when that is the caſe it becomes very uncertain what the diſeaſe is; for in caſes, not admitting of clear proof, we muſt reſt on the concurrence of circumſtances. Many of theſe ſymptoms give way to mercury. This is probably the only concurring circumſtance attending this complaint that is any proof of its being venereal.* It rather, however, appears to militate againſt this idea, that, for the moſt part, a much ſmaller quantity is ſufficient for the cure of ſuch ſymptoms than what is neceſſary for the cure of local complaints. But, if mercury always cured them, it would not be very material what they are called. It is worthy of conſideration, however, how far the venereal poiſon, when in the conſtitution, does or does not always produce local effects. That it in general does, we are certain; but whether it is ever a cauſe of conſtitutional ſymptoms, ſimply, ſuch as loſs of appetite, waſting, debility, want of ſleep, and fever, at laſt becoming hectic, is uncertain; and it is alſo uncertain, whether it is ever capable of producing local actions from irritations only without an alteration of the ſtructure of the parts irritated, as cough, ſecretion from the lungs, purging, headach, ſickneſs, pains in different parts of the body, like rheumatic pains, but not from an alteration of the ſtructure of the part taking place, as beginning nodes. If ſuch effects take place, we muſt in ſuch a caſe rely entirely on the hiſtory of the diſeaſe, and pronounce according to probability. Such complaints come oftner under the management of the phyſician than the ſurgeon, to whom I would recommend a particular attention to this.

The fever in conſequence of the venereal irritation, like moſt other fevers, deranges the conſtitution, which thereupon ſuffers agreeably to its natural tendency. It is capable of producing glandular ſwellings in many parts of the body, and probably many of the nodes that ariſe in the time of this fever, may proceed from the fever, and ſimilar to every ſuch effect, from whatever cauſe, it does not partake of the diſeaſe which produced it, for it is not venereal: it only takes place in conſtitutions very ſuſceptible of ſuch

* Here it is to be underſtood, that the circumſtance of a previous gonorrhœa or chancre is not to be conſidered as ſtrong evidence.

action

action where the predispoſing cauſe is ſtrong, and probably at ſeaſons moſt fitted to produce it, only waiting the immediate cauſe to put them into action, ſuch will and do go away of themſelves when the predispoſing cauſe ceaſes, ſuch as ſeaſon.

IV. OF THE LOCAL AND CONSTITUTIONAL FORMS OF THE DISEASE NEVER INTERFERING WITH ONE ANOTHER.

I obſerved, when treating of the gonorrhœa and chancre, that, when occurring in the ſame perſon, the one neither increaſes the ſymptoms, nor retards the cure of the other. And it may alſo be obſerved, that the chancre or gonorrhœa, and the conſtitutional form of the diſeaſe, meeting in the ſame perſon, do not interfere with each other, either in their ſymptoms or cure.

To explain theſe effects more fully, let me obſerve, that if a man has a gonorrhœa, and a chancre appears ſome days after, the chancre does not either increaſe or diminiſh the gonorrhœa. Again, if a man has either a gonorrhœa, a chancre, or both, and a lues venerea enſue in conſequence of either of theſe, neither the gonorrhœa nor chancre is affected by it. If a man has a lues venerea and gets either a gonorrhœa or chancre, or both, neither of them affects the lues venerea, nor are their ſymptoms the worſe. Nor is the cure of either, ſingly, retarded by the preſence of the other; for a gonorrhœa is as eaſily cured when there are chancres, as when there are none, even although the chancres are not attempted to be cured; and a chancre may be cured locally independent of the gonorrhœa. Further, a gonorrhœa, chancre, or both, may be as eaſily cured, when the conſtitution is poxed either by them, or previous to their appearance, as when the perſon is in perfect health; but the chancre has this advantage, that the conſtitution cannot be cured without its being likewiſe cured.

The gonorrhœa and chancre indeed ſo far influence one another, as the one can be in ſome degree a cauſe of prevention of the other, as has been already

already obſerved; but I believe that this circumſtance does not aſſiſt in the cure of either: yet I could conceive it might, each acting as a derivator to the other, without increaſing its own ſpecific mode of action.

V. OF THE SUPPOSED TERMINATION OF THE LUES VENEREA IN OTHER DISEASES.

This diſeaſe ſeldom or ever interferes with other diſorders, or runs into, or terminates in any other, although it has been very much accuſed of doing ſo; for a termination of one diſeaſe in another, as I underſtand the expreſſion, muſt always be a cure of the one terminated; but the venereal diſeaſe never terminates till the proper remedy is applied, and therefore never can run into any other diſeaſe.

That venereal complaints may be the cauſe of others, I think is very probable. I have ſeen a chancre the immediate cauſe of an eryſipelatous inflammation; but the venereal malady did not terminate in the eryſipelatous inflammation; for, if it had, the chancre would have been cured; nor was the eryſipelatous inflammation venereal; the chancre only acted here as a common irritator, independently of the ſpecific quality of the diſeaſe as a cauſe. I have known a venereal bubo become a ſcrofulous ſore as ſoon as the venereal poiſon was deſtroyed by mercury; this was not a venereal terminating in a ſcrofulous affection; for in ſuch a view the ſcrofula muſt have cured the venereal. The venereal diſeaſe would ſeem only to partake of the nature of ſuch diſorders as the conſtitution was previouſly diſpoſed to, and may excite into action the cauſes of theſe diſorders. The ſame obſervation and mode of reaſoning holds equally good with reſpect to other diſeaſes. The common ſymptoms, however, of the lues venerea, though in ſome degree according to the conſtitution, are not ſo much ſo as either in the chancre, or the gonorrhœa; for the lues venerea is attended with very little inflammation, which in general partakes much more of the nature of the conſtitution than any other diſeaſed action.

VI. OF

VI. OF THE SPECIFIC DISTANCE OF THE VENEREAL INFLAMMATION.

I have already obſerved, that many ſpecific diſeaſes, as alſo thoſe ariſing from poiſon, have their local effects confined to certain diſtances, which I have called their local ſpecific diſtance; and it would appear from obſervation, that the venereal irritation and inflammation, of whatever kind it may be, is guided by this principle; for it ſeldom extends far beyond the ſurface that receives it; the neighbouring part not having a tendency to ſympathiſe, or run eaſily into this kind of inflammation. This is the reaſon why we find a gonorrhœa for weeks confined to one ſpot in the urethra in men, and for months to the vagina in women, not extending further in either. In chancres alſo the inflammation is confined to the ſeat of the ſore without becoming ſo diffuſed as when from common accidents. As a further proof of this fact, we find it is alſo confined to the glands of the groin, in caſes of buboes, till matter is formed in them; which matter acts as a common irritator, and the ſpecific is in ſome degree loſt, and then the inflammation becomes ſomewhat more diffuſed, as happens in common inflammation. We alſo ſee that the ſame thing happens in venereal ulcers when they ariſe from the conſtitution; their ſize is at firſt but ſmall, and they are merely local; but as the diſeaſe increaſes, the ſize increaſes, but ſtill they remain circumſcribed, not becoming diffuſed. Perhaps all poiſons and ſpecific diſeaſes agree in this property of having their inflammation limited and circumſcribed in a manner peculiar to themſelves; for we find that the inflammation of the ſmallpox, meaſles and chickenpox, is each circumſcribed in its own way. From hence it muſt appear, that the human body in general is not ſo ſuſceptible of ſpecific irritations as it is of the common, or what may be called the natural. But we muſt alſo conſider, that the common inflammation in very healthy conſtitutions has its ſpecific diſtance, although not ſo determined or circumſcribed as is that of the ſpecific in ſuch conſtitutions; therefore we may reaſonably ſuppoſe, that ſuch healthy conſtitutions

tions are the furtheſt in diſpoſition from the inflammatory action; and we may alſo ſuppoſe ſtill more ſo from the ſpecific. What would appear to ſtrengthen this idea is, that when the conſtitution is ſuch as readily goes into inflammation, the more readily does the inflammation ſpread, every part being ſuſceptible of ſuch action; and we find that in many the ſpecific alſo ſpreads, although not in ſo great a degree, from which we may ſuppoſe that the ſpecific is always a more confined mode of action. I have ſuſpected that when the body was diſpoſed to increaſe the inflammation beyond the ſpecific diſtance, it was of the eryſipelatous kind, as was mentioned before, and which is to be attended to in the cure.

VII. OF THE PARTS MOST SUSCEPTIBLE OF THE LUES VENEREA—OF THE TIME AND MANNER IN WHICH THEY ARE AFFECTED—WHAT IS MEANT BY CONTAMINATION, DISPOSITION AND ACTION—SUMMARY OF THE DOCTRINE.

When I aſſigned the cauſes for ſo great a difference in the effects of the ſame poiſon upon two different ſurfaces, as forming the gonorrhœa and chancre, I then ſaid I did not know whether ſimilar ſurfaces in every part of the body were equally ſuſceptible of this irritation, having but few comparative trials of the direct application of the poiſon to other parts beſides thoſe of generation. But it would appear that ſome parts of the body are much leſs ſuſceptible of the lues venerea than others; and not only ſo, but many parts, ſo far as we know, are not ſuſceptible of it at all. For we have not yet had every part of the body affected; we have not ſeen the brain affected, the heart, ſtomach, liver, kidneys, nor other viſcera; although ſuch caſes are deſcribed in authors. But as there are different orders of parts reſpecting the times of the diſeaſe appearing, and as the perſon commonly flies to relief upon the firſt or ſecond appearances, it may be ſuppoſed that the whole diſeaſe in the parts actually affected is cured before the other parts have had time to come into action, which will therefore be cured under the ſtate of a diſpoſition only, if we can conceive that a cure can

take place before the parts have come into action. But if the parts visibly affected are cured, while those only disposed are not, and afterwards come into action, they would form a second order respecting time; and if these again are cured, and other parts under a disposition should come into action, such would form a third order of parts respecting time. The lungs have been believed to have been affected with the venereal disease, both from the circumstances preceding the complaint, and from the complaint itself being cured by mercury; and their being affected when the other viscera are not, may arise from their being in some degree an external surface, as will be explained hereafter.

It is this form of the disease therefore that gives us the comparative susceptibility of parts both for disposition and action. For we must suppose that all parts are equally and at once exposed to the action of the poison; but though there may be various degrees of susceptibility, it will be sufficient for practice to divide them into two, under the following appellations of *first in order*, and *second in order*, to which we may add the intermediate.

Whether the parts that are really first affected are naturally more easily affected by this kind of irritation, or that some other circumstance which belongs to these parts is the cause, cannot be absolutely determined; but the matter being attentively considered, it would appear to be owing to something foreign to the constitution, and also not depending on the nature of the parts themselves; for if we take a view of all the parts, that are first affected by this disease, when arising from the constitution, which I shall suppose are the parts most susceptible of it, we shall see that in the recent state of the disease these parts are subject to one general affection, while there are similar parts of the body not affected by this disease, and not subject to this general affection. Probably the parts second in order may naturally be as susceptible of the irritation as those first in order; but not being under the influence of an irritating cause, they are later in coming into action; and there are also probably other causes in the nature of the parts themselves, such as being indolent in all their actions, and of course indolent in this, therefore later in coming into action. However, it is not universally the case that the parts which I have called first in order are always so; on the contrary, we find that this order is inverted in some

cases,

caſes, although but rarely. We cannot ſuppoſe that this difference ariſes from any active power in the poiſon, nor any particular direction of it, but from properties in the parts themſelves; for it may be allowed us to ſuppoſe, that when this matter has got into the circulation, it acts on all parts of the body with equal force; that is, it is not determined to any one part more than another by any general or particular power in the animal machine; nor is the nature of the poiſon ſuch as will fall more readily on one part of the body than another, when they are all in ſimilar circumſtances. That ſome parts therefore are more readily affected by it than others, owing to circumſtances which are no part of the animal principle, nor of the poiſon; and alſo that ſome parts of the body have a greater tendency to be irritated by it than others, muſt be allowed.

The parts that are affected by this form of the diſeaſe when in its early ſtage or appearance, which I have called firſt in order, are the ſkin, tonſils, noſe, throat, inſide of the mouth, and ſometimes the tongue.* When in its later ſtate, the perioſteum, faſciæ, and bones come into action, and theſe I call *ſecond in order of parts*. Perhaps the bones come into action from the membrane being affected.

That we may be able to account in ſome meaſure for theſe ſimilar effects as to time in diſſimilar parts, ſuch as the ſkin and the tonſils, two very different kinds of parts, let us conſider in what circumſtance they agree, and why they are more ſuſceptible of this irritation than thoſe parts that probably are naturally as much ſo, although they do not receive it ſo readily, ſuch as the perioſteum, faſciæ, and bones.

The moſt remarkable circumſtance perhaps to which the external ſurface is expoſed, and to which the internal is not, is cold, or a ſucceſſion of different degrees of cold. For we may obſerve in general, that the atmoſphere

* The tongue is very ſubject to have ulcers formed on it, eſpecially on its edges. They are ſeldom very large, nor are they often either very foul or have a hard baſis: theſe are commonly ſuppoſed to be venereal; but I believe they ſeldom are. I do not know whether I am, or not, acquainted with the diſtinguiſhing marks. I never ſaw but one that I ſuſpected to be either venereal or cancerous from its foul look and its hard baſis. It gave way readily to mercury, therefore I ſuppoſed it to be venereal.

in which we live is colder than the human body* in its uſual temperature, therefore the ſkin, &c. is continually expoſed to a cold greater than what the internal parts are; and we find that all thoſe parts which are moſt expoſed to this, admit of being much more eaſily affected, or come more readily into action in this diſeaſe than the others.

It is certain that cold has very powerful effects on the animal œconomy. It would at leaſt appear to have great powers of diſpoſing the body for receiving the venereal irritation, and going readily on with it.

From this idea we may account for ſeveral circumſtances reſpecting this diſeaſe, as the mouth, noſe and ſkin being the moſt frequently affected, ſince they are rendered moſt ſuſceptible of it from the cauſes before-mentioned, and for the ſame reaſon come very readily into action. If this be a true ſolution, it alſo accounts for thoſe ſecond in order being affected; for if the poiſon has contaminated parts which are both firſt in order of ſuſceptibility and time of coming into action, it is natural to ſuppoſe that thoſe parts which are moſt prediſpoſed, as the external ſurfaces, ſhall come firſt into action; the parts expoſed to cold, in the next degree, forming the ſecond in order, come next into action, ſuch as bones, perioſteum, &c. but even in them it is not in every bone alike, or every part alike of any one bone; for it appears firſt in thoſe that are in ſome meaſure within the power of being affected by ſympathy from application of cold to the ſkin: we find that when the deeper ſeated parts, or the parts ſecond in order come into action, ſuch as the perioſteum or bones, it is firſt in theſe that are neareſt the external ſurface of the body, ſuch as the perioſteum or bones of the head, the tibia, ulna, bones of the noſe, &c. nor does it affect theſe bones on all ſides equally, but firſt on that ſide next the external ſurface. However, it would appear that in the bones there is another cauſe beſides the viciſſitudes of weather, why this diſeaſe ſhould attack them; for the perioſteum of bones, or bones themſelves, are not liable to be diſeaſed on all parts in proportion

* It is to be underſtood, that this cannot hold good as an univerſal principle; it can only take place in the temperate and frigid zone; for in the torrid the heat of the ſurrounding atmoſphere is ſometimes greater than that of the human body.

to the diſtance from the ſkin, the perioſteum which covers the ankles, or many of the joints being as near the external ſurface as many other parts of the perioſteum or bones that are affected. The nature of the bones themſelves, which are covered by that perioſteum, are ſomewhat different; they are ſofter in their texture, therefore they would ſeem to be affected in proportion to their nearneſs to the ſkin and hardneſs of the bones jointly; which would incline us to believe, that the bones are more eaſily affected, and rather have ſome influence upon the perioſteum in this diſeaſe, than the perioſteum upon them; and this ſuſceptibility in the hard bones would appear to be in proportion to their quantity of earth and expoſure to cold combined.

It may be objected to this theory, that the fore-part of the tibia, &c. cannot be really colder than the back-part; but then it may be ſuppoſed, that it is not neceſſary that the part ſhould be actually cold, but only within the power of ſympathy. For a part that is not actually cold is capable of being affected from its ſympathiſing with a cold part in the ſame manner as if actually cold; although perhaps not in ſo great a degree, and therefore requires a longer time to come into action than if it were actually cold. We find, for example, that when the ſkin is actually cold, the muſcles underneath are thrown into alternate action, ſo that we tremble, or our teeth chatter with cold, and yet it is poſſible that theſe muſcles may not be colder at this time than any other; although it is moſt probable that they are really colder,* which will aſſiſt the power of ſympathy. So far as cold can affect the actions of parts, ſo far alſo will the ſympathiſing part be affected in proportion as it is nearer to the parts actually cold; therefore the deeper ſeated parts in the venereal diſeaſe are later in coming into action.

The actual cold parts come firſt into action, then thoſe that are leſs ſo, and next thoſe that are neareſt in ſympathy, and ſo on, except the parts firſt in order of ſuſceptibility have been only partially cured, and then their recurrence may correſpond with the action of thoſe that are ſecond in order of ſuſceptibility, and all the parts will come into action together. What would ſeem to ſtrengthen this opinion is, the different effects that ariſe from

* See Philoſophical Tranſactions, vol. 68, part I, page 7.

different

different climates: in warm climates the diſeaſe ſeldom or ever ariſes to ſuch a height as in cold climates; it is more ſlow in its progreſs, and much more eaſy to cure, at leaſt if we may give credit to the accounts we have received of the diſeaſe in ſuch climates.

Whether the difference in the time of appearance between the ſuperficial and deeper ſeated parts in warm climates is the ſame as in cold ones, I do not know; but from the above theory it ſhould not be ſo great in the warm as in the cold climates.

Beſides the cauſes already mentioned, it would appear that there are others by which the lues venerea may be brought ſooner into action than it otherways would be if left entirely to the nature of the conſtitution; for I think I have ſeen caſes where fever has brought it into action when the diſpoſition had been previouſly formed. Like moſt other diſeaſes to which there is a ſuſceptibility or diſpoſition, we find that any diſturbance in the conſtitution ſhall call it forth: ſcrofula, gout, and rheumatiſm are often called forth in this way.

Having ſaid that the deeper ſeated parts of the body come into action later than thoſe that are ſuperficial, I ſhall now obſerve, that when the lues venerea has been cured ſo far as only to remove the firſt actions, but not to eradicate the diſpoſition in the deeper ſeated parts, as has been explained, under ſuch circumſtances of the diſeaſe it never attacks again the external, or the parts that were firſt affected, but only the deeper ſeated parts which are ſecond in order of time. The reaſon is, that the deeper ſeated parts had not been affected at the time of the cure of the firſt. The following caſes, ſelected from a great number of ſimilar ones, will illuſtrate the doctrines we have laid down.

In January 1781, A. B. had connection with a woman, and two days after perceived an itching in the glans: at the end of four days he found chancres upon the prepuce. He took about twenty grains of calomel, and then applied to a ſurgeon, under whoſe care he remained three months, that is, till April. He thought himſelf nearly well, and went into the country, taking a few pills with him, and at the end of another month believed himſelf perfectly cured. Three months after, that is in Auguſt, he caught cold, and had conſiderable fever, for which James's powders were

were given. Soon after this, ſpots of a copper colour appeared upon his legs, and he had violent pains in his ſhin bones. By the order of a country ſurgeon, he rubbed in about an ounce of mercurial ointment, and had a ſlight ſpitting; the pain ceaſed, the ſpots diſappeared, and in a month he again conceived himſelf to be well. This was in October 1781. In June 1782, he had the influenza: about a fortnight afterwards his left eye inflamed, and he had a pain in the head, and a noiſe in his ears. Five days afterwards his throat became ſore. Three weeks after the inflammation of his eye, ſeveral piſtules made their appearance near the anus. Theſe ſymptoms remained till the 21ſt of Auguſt, when he came into St. George's Hoſpital. He rubbed in ſtrong mercurial ointment till his mouth became ſore; he ſweated very much; the pain in his head remained, but the complaint in his eye, and about the anus, together with the ſore throat, were totally removed.

It appears that, in this caſe, ſome additional power was required to diſpoſe the body more readily to exhibit venereal ſymptoms. That cold has a ſtrong power of this kind we have allowed, which appears in this caſe to have been the firſt immediate cauſe; but a fever ſeems to have been equally effectual in producing the ſecond return of the ſymptoms.

Here was the venereal diſpoſition in the conſtitution from April 1781, the time he was cured of the local complaint, till June 1782, fourteen months after; and then it reappeared eleven months after that, which periods might have been longer, if it had not been called forth by the two circumſtances of cold and fever.

Let us conſider how far this caſe correſponds with the opinion of the action being eaſier of cure than the diſpoſition. The firſt action, that is, the chancres, were perfectly cured by the quantity of mercury he took at firſt, for they never recurred; but the venereal matter had produced the diſpoſition in the conſtitution, which was not cured by the ſame quantity of mercury, for blotches appeared three months after; but all the parts that had taken on the diſpoſition at that time had not then come into action; therefore only the parts which had come into action were cured by the ſecond courſe of mercury; and the other parts which had not yet taken on the action, went on with the diſpoſition till the influenza (which happened

eleven

eleven months after) brought them into action. The firſt claſs of pocky appearances were perfectly cured by the ſecond courſe of mercury, as the local had been cured by the firſt; for they never reappeared, not even with the ſecond. The ſecond ſet of pocky ſymptoms, we have obſerved, appeared to be perfectly cured by the third courſe of mercury. How far there may be a third ſet of pocky ſymptoms to come forth, time can only tell.

This caſe further proves, that ſometimes the ſecond ſet of ſymptoms appear firſt, and the firſt ſecond; and alſo ſhows the difference in times between the firſt pocky appearances after the healing of the local, and between the ſecond appearance of the ſymptoms after the healing of the firſt.

A gentleman had a chancre in May 1781: in the ſame month of the next year, 1782, he had a gonorrhœa; and, in May 1783, he had a ſore throat. He had no connection with any woman from September 1782, till May 1783, which was about a fortnight before his throat became ſore, and had had no immediate local complaints.

When I ſaw the throat firſt, I ſaid it was not venereal; and he being rather of an hectic habit, was deſired to go to Briſtol. When at Briſtol, an ulcer appeared at the root of the uvula, which made him immediately come back to London. When I ſaw this ulcer I ſaid it was venereal. He now went through what I ſuppoſed was a ſufficient courſe of mercury, and all the venereal ſypmtoms appeared to be cured.* He went into the country about the month of Auguſt; and about the beginning of January 1784, viz. four months after the ſuppoſed cure, he felt a pain, together with a ſwelling, in his ſhin bones, for which he went through a courſe of mercury which removed both the pain and the ſwelling.

In this caſe we have every reaſon to ſuppoſe that the diſpoſition had taken place in the bones, or their coverings, from the ſame cauſe that affected the uvula; but the uvula ſuffered firſt, being of the firſt order of parts. Whether this was really the caſe or not, we muſt allow that in the parts ſecond in order, the diſpoſition, and not the action, did exiſt at the time when the diſeaſe in the uvula came into action, as alſo at the time when he

* I may remark here, that only the venereal ulcer got well by the mercury, for the former excoriation of the throat continued, but was afterwards cured by bark and ſarſaparilla.

went

went through a courſe of mercury ſufficient to cure the uvula; we muſt alſo allow that the diſpoſition was not removed by the quantity of mercury which was capable of removing the diſeaſe in the uvula. From all which I would draw the following inferences in confirmation of the preceding doctrine: firſt, that the parts about the throat are capable of aſſuming the action ſooner than the bones. Secondly, it is probable that mercury can cure the action only, and not the diſpoſition; and thirdly, that the venereal pus is not preſent in the circulation while the ſecondary actions take place; for if it were, the parts firſt in order would ſtand an equal chance of being again contaminated, and of coming into action a ſecond time; ſuppoſing the venereal matter ſtill to exiſt in the conſtitution after the parts firſt thrown into action are abſolutely cured, ſo as to contaminate the parts that are ſecond in order of action, we ſhould certainly have the parts firſt in order take on the diſeaſe a ſecond and even a third time, and ſo on, while the ſecond or third in order would be going on and only coming into their firſt action; and therefore we might have thoſe that are firſt in order, and thoſe that are ſecond in order, in action at the ſame time. This might be carried ſtill further, for as it is poſſible for the parts firſt in order of ſuſceptibility to have the diſeaſe a ſecond time, while the parts ſecond in order are under the influence of the firſt infection, thoſe firſt in order may be contaminated a ſecond time from a new or freſh infection; which would be a lues venerea upon a lues venerea, a caſe which certainly may happen. If the matter does really continue in the conſtitution, it would be natural to ſuppoſe that the parts moſt eaſily affected by it would remain ſo long as the poiſon remained. It may indeed be alledged, that parts which have already been accuſtomed to this irritation and cured, are rendered by that means leſs ſuſceptible of it.

If the poiſon were ſtill capable of circulating after its viſible effects were cured, then mercury given in the time of a chancre can be of little ſervice, as it can only aſſiſt in the cure of the chancre, but cannot preſerve the conſtitution from infection, which does not agree with experience; for practice informs us, that not one in fifty would eſcape the lues venerea if the chancre were only cured locally; ſo that mercury has the power of preventing

a diſpoſition from forming, and therefore is neceſſary to be given while we ſuppoſe abſorption going on, or while there is matter that may be abſorbed.

Mercury, prior to the action, will not remove the diſpoſition, and of courſe will not hinder the action coming on afterwards; however, it is poſſible, and moſt probable, that the medicine while it is preſent will hinder the action taking place; ſo that no venereal complaints will take place under the courſe of mercury, although the parts may be contaminated.

This is not peculiar to the venereal diſeaſe, but common to many others, and in ſome it may be reverſed, for there are diſeaſes whoſe diſpoſition can be cured, and therefore the action prevented by ſuch medicines as would rather increaſe the action if given in the time of it.

The parts firſt affected are more eaſily cured, according to our preſent method, than the parts ſecond in order. A part once perfectly cured is never irritated again by the ſame ſtock of infection, though probably ſome other parts in the conſtitution are ſtill under the venereal irritation. If the facts ſtated be juſt, the circumſtance of the diſeaſe appearing to leave the parts firſt attacked, and attacking the ſecondary parts, is eaſily accounted for. It is no more than the firſt parts being cured while the ſecondary are not, and of courſe going on with the diſeaſe, the firſt remaining well.

If this mode of accounting for theſe circumſtances be juſt, it proves two things; firſt, a former aſſertion, that this diſeaſe, in the form of lues venerea, has not the power of contaminating parts, not already under its influence, even in the ſame conſtitution; ſecondly, that the venereal poiſon is not circulating in the blood all the time the diſeaſe is going on in the conſtitution; ſo that moſt probably the poiſon only irritates when juſt abſorbed, and is ſoon expelled or thrown out in ſome of the ſecretions.

The above account of the lues venerea may be reduced to the following heads.

Firſt, that moſt parts, if not all, that are affected in the lues venerea, are affected with the venereal irritation at the ſame time.

Secondly, the parts expoſed to cold are the firſt that admit the venereal action; then the deeper ſeated parts, according to their ſuſceptibility for ſuch action.

Thirdly,

Thirdly, the venereal diſpoſition, when once formed in a part, muſt neceſſarily go on to form the venereal action.

Fourthly, that all parts of the body, under ſuch diſpoſition, do not run into action equally faſt, ſome requiring ſix or eight weeks, others as many months.

Fifthly, in the parts, that come firſt into action, the diſeaſe goes on increaſing without wearing itſelf out, while thoſe that are ſecond in time follow the ſame courſe.

Sixthly, mercury hinders a diſpoſition from forming, or in other words, prevents contamination.

Seventhly, mercury does not deſtroy a diſpoſition already formed.

Eightly, mercury hinders the action from taking place although the diſpoſition be formed;

Ninthly, mercury cures the action.

Theſe principles being eſtabliſhed, the facts reſpecting the cure are eaſily accounted for.

CHAPTER II.

OF THE SYMPTOMS OF THE LUES VENEREA.

WHEN the venereal matter has affected the conſtitution in any of the ways before-mentioned, it has the whole body to work upon, and ſhows itſelf in a variety of ſhapes; many of which putting on the appearance of a different diſeaſe, we are often obliged to have recourſe to the preceding hiſtory of the caſe, before we can form any judgment of it. Probably the varieties in the appearances may be referred to the three following circumſtances; the different kinds of conſtitutions; the different kinds of ſolids affected; and the different diſpoſitions which the ſolids are in at the time: for I can eaſily conceive, that a peculiarity of conſtitution may make a very material difference in the appearance of the ſame ſpecific complaint; and I am certain, that the ſolids, according to their different natures, produce a very different appearance when attacked with this diſeaſe; and I can alſo eaſily conceive, that a different diſpoſition, from the common, in the ſolids at the time, may make a conſiderable difference in the appearances.

The difference of conſtitution, and of the ſame parts at different times, may have conſiderable effects in the diſeaſe with reſpect to its appearing ſooner, or later. This I am certain of, that the different parts of the body produce a very conſiderable difference in the times of appearance of this diſeaſe. That it appears much ſooner in ſome parts than in others, is beſt ſeen where different parts are affected in the ſame perſon; for I have already endeavoured to ſhow that it is moſt probable that all the parts affected are contaminated nearly at the ſame time. This difference in the times is either owing to ſome parts being naturally put into action more eaſily by the poiſon than others, or they are naturally more active in themſelves, and therefore probably will admit more quickly the action of every diſeaſe that is capable of affecting them.

When

When on the general hiſtory of the lues venerea, I divided the parts into two orders, according to the time of their appearance; I alſo obſerved that the firſt were commonly the external parts, as the ſkin, noſe, tonſils; and that the ſecond were more internal, as the bones, perioſteum, faſciæ, and tendons.

The time, neceſſary for its appearance, or for producing its local effects in the ſeveral parts of the body, moſt readily affected, after it has got into the conſtitution is uncertain; but in general it is about ſix weeks; in many caſes, however, it is much later, and in others much ſooner. In ſome caſes it appears to produce its local effects within a fortnight after the poſſibility of the abſorption of the matter. In one caſe a gentleman had a chancre, and a ſwelling in the groin came on, and within the before-mentioned time he had venereal eruptions all over the body. He could not impute this to any former complaint, yet there is a poſſibility of its having ariſen from the firſt mode of catching the diſeaſe, by ſimple contact, at the time he got the local or chancre, which might extend the time to a week or more, although this is not probable. In another caſe, three weeks after the healing of a chancre, eruptions broke out all over the body, and this happened only a fortnight after leaving off the courſe of mercury that cured the chancre. The effects on other parts of the body, that are leſs ſuſceptible of this irritation, or are ſlower in their action, are of courſe much later in appearing; and in thoſe caſes where both orders of parts are contaminated, it is in general not till after the firſt has made its appearance for a conſiderable time, and even perhaps after it has been cured; for while the parts firſt in order of action were contaminated and under cure, the ſecond in order are only in a ſtate of contamination, and go on with the diſeaſe afterwards, although it may never again appear in the firſt.

From this circumſtance of the parts, ſecond in order, coming later into action, we can plainly ſee the reaſon why it ſhall appear in them, although the firſt in order may have been cured; for if the external parts, or firſt in order, have been cured, and the internal, or ſecond, ſuch as the tendons, bones, perioſteum, &c. have not been cured, then it becomes confined ſolely to theſe parts. The order of parts may ſometimes be inverted; for I have ſeen caſes where the perioſteum, or bone, was affected prior to any other

other part; whether in the ſame caſe it might in the end have affected the ſkin, or throat, I will not pretend to ſay, as it was not allowed to go on; but it is poſſible that the ſecond order of parts may be affected without the firſt having ever been contaminated.

Its effects on the deeper ſeated parts are not like thoſe produced in the external, and the difference is ſo remarkable as to give the appearance of another diſeaſe; and a perſon accuſtomed to ſee it in the firſt parts only, would be entirely at a loſs about the ſecond.

The parts which come firſt into action go on with it, probably on the ſame principle, much quicker than the others; and this ariſes from the nature of the parts, as has already been obſerved.

Each ſucceeding part, that becomes affected, is ſlower and ſlower in its progreſs, and more fixed in its ſymptoms when produced; this ariſes alſo from the natural diſpoſition of ſuch parts, all their actions being ſlow, which indolent action may be aſſiſted by the abſence of the great diſpoſing cauſe, that is cold. I ſhould, however, ſuſpect that warmth does not contribute much to their indolence of action, for if it did, it would aſſiſt in the cure, which it appears not to do, theſe parts being as ſlow in their operations of reſtoration as they are in their actions of diſeaſe. We may alſo obſerve, that ſimilar parts come ſooner into action, and appear to go on more rapidly with it, as they are nearer the ſource of the circulation. It appears earlier on the face, head, ſhoulders, and breaſt, than on the legs, and the eruptions come ſooner to ſuppuration in the before-mentioned parts.*

The circumſtance of its being very late in appearing in ſome parts, when it had been only cured in its firſt appearances, as mentioned, has made many ſuppoſe that the poiſon lurked ſomewhere in the ſolids; and others, that it kept circulating in the blood for years.

It is not, however, eaſy to determine this point; but there can be no good reaſon for the firſt hypotheſis, as the lurking diſpoſition never takes place prior to its firſt appearance; for inſtance, we never find that a man had a chancre a twelvemonth ago, and that it broke out after in venereal ſcurfs upon the ſkin, or ulcers in the throat. The ſlowneſs of its progreſs is only when the parts, leſs ſuſceptible of its irritation, have been affected by it.

* See Introduction.

I. OF THE SYMPTOMS OF THE FIRST STAGE OF THE LUES VENEREA.

The firſt ſymptoms of the diſeaſe, after abſorption, appear either on the ſkin, throat, or mouth. Theſe differ from one another according to the nature of the parts affected. I ſhall therefore divide them into two kinds, although there appears to be no difference in the nature of the diſeaſe itſelf.

The appearance on the ſkin I ſhall call the firſt, although it is not always the firſt appearance; for that in the throat is often as early a ſymptom as any. The appearances upon the ſkin generally ſhow themſelves in every part of the body, no part being more ſuſceptible than another, firſt in diſcolourations, making the ſkin appear mottled, many of them diſappearing, while others continue, and increaſe with the diſeaſe.*

In others it will come on in diſtinct blotches, often not obſerved till ſcurfs are forming; at other times they appear in ſmall diſtinct inflammations, containing matter and reſembling pimples, but not ſo pyramidal, nor ſo red at the baſe.

Venereal blotches, at their firſt coming out, are often attended with inflammation, which gives them a degree of tranſparency, which I think is generally greater in the ſummer than in the winter, eſpecially if the patient be kept warm. In a little time this inflammation diſappears, and the cuticle peels off in the form of a ſcurf. This ſometimes miſleads the patient, and the ſurgeon, who look upon this dying away of the inflammation as a decay of the diſeaſe, till a ſucceſſion of ſcurfs undeceives them.

Theſe diſcolourations of the cuticle ariſe from the venereal irritation, and are ſeldom to be reckoned a true inflammation, for they ſeldom have any of its characteriſtics, ſuch as tumefaction and pain; but this is true only on thoſe parts moſt expoſed; for in parts well covered, and in parts conſtantly in contact with other parts there is more of the true inflammatory appearance, eſpecially about the anus.

* This is not peculiar to this diſeaſe, it often takes place in the ſmallpox.

The

The appearance of the parts themſelves next begins to alter, forming a copper coloured dry inelaſtic cuticle, called a ſcurf; this is thrown off, and new ones are formed. Theſe appearances ſpread to the breadth of a ſixpence or ſhilling, but ſeldom broader, at leaſt for a conſiderable time, every ſucceeding ſcurf becoming thicker and thicker, till at laſt it becomes a common ſcab, and the diſpoſition for the formation of matter takes place in the cutis under the ſcab, ſo that at laſt it turns out a true ulcer; in which ſtate it commonly ſpreads, although but ſlowly.

Theſe appearances ariſe firſt from the gradual loſs of the true ſound cuticle; the diſeaſed cutis having loſt the diſpoſition to form one; and, as a kind of ſubſtitute for this want of cuticle, an exudation takes place, forming a ſcale, and afterwards becoming thicker, and the matter acquiring more conſiſtence, it at laſt forms a ſcab; but before it has arrived at this ſtage, the cutis has given way, and ulcerated, after which the diſcharge becomes more of a true pus. When it attacks the palms of the hands and the ſoles of the feet, where the cuticle is thick, a ſeparation of the cuticle takes place, and it peels off, a new one is immediately formed, which alſo ſeparates, ſo that a ſeries of new cuticles takes place from its not ſo readily forming ſcurfs as on the common ſkin. If the diſeaſe is confined to thoſe parts, it becomes more difficult to determine whether or not it be venereal; for moſt diſeaſes of the cutis of theſe parts produce a ſeparation of the cuticle attended with the ſame appearances in all, and having nothing characteriſtic of the venereal diſeaſe.

Such appearances are peculiar to that part of the common ſkin of the body which is uſually expoſed; but when the ſkin is oppoſed by another ſkin which keeps it in ſome degree more moiſt, as between the nates, about the anus, or between the ſcrotum and the thigh, or in the angle between the two thighs, or upon the prolabium of the mouth, and in the arm-pits, the eruptions never acquire the above-deſcribed appearances, and inſtead of ſcurfs and ſcabs we have the ſkin elevated, or, as it were, tumefied by the extravaſated lymph into a white, ſoft, moiſt, flat ſurface, which diſcharges a white matter. This may perhaps ariſe from there being more warmth, more perſpiration, and leſs evaporation, as well as from the ſkin being thinner in ſuch places. What ſtrengthens this idea ſtill more is, that in many venereal

venereal patients I have ſeen an approach towards ſuch appearances on the common ſkin of the body; but this has been on ſuch parts as were covered with the cloaths; for on thoſe parts of the ſkin, that were not covered, there was only the flat ſcurf: theſe, however, were redder than the above-deſcribed appearances, but hardly ſo high.

How far this is peculiar to the venereal diſeaſe, I know not. It may take place in moſt ſcurfy eruptions of the ſkin. From a ſuppoſition of this not being venereal, I have deſtroyed them at the ſide of the anus with a cauſtic, and the patient has got well; however, from my idea of the diſeaſe that every effect from the conſtitution is truly local, and therefore may be cured locally; a cure effected by this treatment does not determine the queſtion.

This diſeaſe, on its firſt appearance, often attacks that part of the fingers upon which the nail is formed, making that ſurface red which is ſeen ſhining through the nail; and, if allowed to continue, a ſeparation of the nail takes place, ſimilar to the cuticle in the before-deſcribed ſymptoms; but here there cannot be that regular ſucceſſion of nails as there is of cuticle.

It alſo attacks the ſuperficies of the body which is covered with hair, producing a ſeparation of the hair. A prevention of the growth of young hair is alſo the conſequence while the diſeaſe laſts.

The ſecond part, in which it appears, is moſt commonly the throat, ſometimes the mouth and tongue. In the throat, tonſils, and inſide of the mouth, the diſeaſe generally ſhows itſelf at once in the form of an ulcer without much previous tumefaction, ſo that the tonſils are not much enlarged; for when the venereal inflammation attacks theſe parts, it appears to be always upon the ſurface, and it very ſoon terminates in an ulcer.

Theſe ulcers in the throat are to be carefully diſtinguiſhed from all others of the ſame parts. It is to be remarked, that this diſeaſe when it attacks the throat, always, I believe, produces an ulcer; although this is not commonly underſtood; for I have ſeen caſes where no ulceration had taken place, called, by miſtake, venereal. It is therefore only this ulcer that is to be diſtinguiſhed from other ulcers of theſe parts. This ſpecies of ulcer is generally tolerably well marked, yet it is perhaps in all caſes not to be diſtin-

guiſhed from others that attack this part, for ſome have the appearance of being venereal, and what are really venereal reſemble thoſe that are not. We have ſeveral diſeaſes of this part which do not produce ulceration on the ſurface, one of which is common inflammation of the tonſils, which often ſuppurates in the centre, forming an abſceſs, which burſts by a ſmall opening, but never looks like an ulcer begun upon the ſurface as in the true venereal; this caſe is always attended with too much inflammation, pain, and tumefaction of the parts to be venereal; and if it ſuppurates and burſts, it ſubſides directly, and it is generally attended with other inflammatory ſymptoms in the conſtitution.

There is another diſeaſe of theſe parts, which is an indolent tumefaction of the tonſils, and is peculiar to many people whoſe conſtitutions have ſomething of the ſcrofula in them, producing a thickneſs in the ſpeech. Sometimes the coagulable lymph is thrown out on the ſurface, and called by ſome ulcers, by others ſloughs, and ſuch are often called putrid ſore throats. Thoſe commonly ſwell to too large a ſize for the venereal; and this appearance is eaſily diſtinguiſhed from an ulcer or loſs of ſubſtance; however, where it is not plain at firſt ſight, it will be right to endeavour to remove ſome of it; and if the ſurface of the tonſil is not ulcerated, then we may be ſure it is not venereal. I have ſeen a chink filled with this, appearing very much like an ulcer; but upon removing the coagulable lymph, the tonſil has appeared perfectly ſound. I have ſeen caſes of a ſwelled tonſil where a ſlough formed in its centre, and that ſlough has opened a paſſage out for itſelf; and when it has been as it were ſticking in this paſſage it has appeared like a foul ulcer.

The moſt puzzling ſtage of the complaint is, when the ſlough is come out, for then it has moſt of the characters of the venereal ulcer; but when I have ſeen the diſeaſe in its firſt ſtages, I have always treated it as of the eryſipelatous kind, or as ſomething of the nature of a carbuncle.

When I have ſeen them in their ſecond ſtage only I have been apt to ſuppoſe them venereal; however, no man will be ſo raſh as to pronounce what a diſeaſe is from the eye only, but will make inquiries into all the circumſtances before he forms a judgment. If there have been no preceding

local

local ſymptoms within the proper date, he will ſuſpend his judgment and wait a little to ſee how far Nature is able to relieve herſelf. If there has been any preceding fever, it will be ſtill leſs probable that it is venereal. However, I will not ſay of what nature ſuch caſes are, but only that they are not venereal, as they are often believed to be. I have ſeen a ſore throat of this kind miſtaken for venereal, and mercury given till it affected the mouth, which when it did, it brought on a mortification on all the parts concerned in the firſt diſeaſe. It would therefore appear that this ſpecies of the ſore throat is aggravated by mercury.

There is another complaint of thoſe parts which is often taken for venereal, which is an ulcerous excoriation, where the ulceration or excoriations run along the ſurface of the parts, becoming very broad and ſometimes foul, having a regular termination, but never going deep into the ſubſtance of the parts as the venereal ulcer does. There is no part of the inſide of the mouth exempted from this ulcerous excoriation; but I think it is moſt frequent about the root of the uvula, and ſpreads forwards along the palatum molle. That ſuch are not venereal, is evident from their not giving way in general to mercury; and I have ſeen them continue for weeks without altering, and a true venereal ulcer appear upon the centre of the excoriated part.

The difference between the two is ſo ſtrong that there can be no miſtake; patients have gone through a courſe of mercury which has perfectly cured the venereal ulcers, but has had no effect upon the others, which have afterwards been cured by bark.

The true venereal ulcer in the throat is perhaps the leaſt liable to be miſtaken of any of the forms of the diſeaſe. It is a fair loſs of ſubſtance, part being dug out as it were from the body of the tonſil, with a determined edge, and is commonly very foul, having thick white matter adhering to it like a ſlough, which cannot be waſhed away.

Ulcers in ſuch ſituations are always kept moiſt, the matter not being allowed to dry and form ſcabs, as in thoſe upon the ſkin; the matter is carried off the ulcers by deglutition, or the motion of the parts, ſo that no ſucceſſion of ſcurfs or ſcabs can take place, as on the ſkin.

Their progreſs is alſo much more rapid than on the common ſkin, ulceration taking place very faſt.

Like moſt other ſpreading ulcers, they are generally very foul, and for the moſt part have thickened or bordered edges, which is very common to venereal or cancerous ſores, and indeed to moſt ſores which have no diſpoſition to heal, whatever the ſpecific diſeaſe may be.

When it attacks the tongue it ſometimes produces a thickening and hardneſs in the part; but this is not always the caſe, for it very often ulcerates as in the other parts of the mouth.

They are generally more painful than thoſe of the ſkin; although not ſo much ſo as common ſore throats ariſing from inflamed tonſils.

They oblige the perſon to ſpeak thick, or as if his tongue was too large for his mouth, with a ſmall degree of ſnuffling.

Theſe are the moſt common ſymptoms of this ſtage of the diſeaſe; but it is perhaps impoſſible to know all the ſymptoms this poiſon produces when in the conſtitution. I knew a gentleman who had a teaſing cough, which he imputed to it; for it came on with the ſymptomatic fever and continued with it, and by uſing mercury both diſappeared.

There are inflammations of the eyes which are ſuppoſed to be venereal; for after the uſual remedies againſt inflammation have been tried in vain, mercury has been given on the ſuppoſition of the caſe being venereal, and ſometimes with ſucceſs, which has tended to eſtabliſh this opinion. But if ſuch caſes are venereal, the diſeaſe is very different from what it is when attacking other parts, from the conſtitution, for the inflammation is more painful than in venereal inflammation proceeding from the conſtitution; and I have never ſeen ſuch caſes attended with ulceration, as in the mouth, throat, and tongue, which makes me doubt much of their being venereal.

II. EXPERIMENTS MADE TO ASCERTAIN THE PROGRESS AND EFFECTS OF THE VENEREAL POISON.

To aſcertain ſeveral facts relative to the venereal diſeaſe, the following experiments were made. They were begun in May 1767.

Two

Two punctures were made on the penis with a lancet dipped in venereal matter from a gonorrhœa; one puncture was on the glans, the other on the prepuce.

This was on a Friday; on the Sunday following there was a teasing itching in those parts which lasted till the Tuesday following. In the mean time, these parts being often examined, there seemed to be a greater redness and moisture than usual, which was imputed to the parts being rubbed. Upon the Tuesday morning, the parts of the prepuce where the puncture had been made were redder, thickened, and had formed a speck; by the Tuesday following, the speck had increased and discharged some matter, and there seemed to be a little pouting of the lips of the urethra, also a sensation in it in making water, so that a discharge was expected from it. The speck was now touched with lunar caustic, and afterwards dressed with calomel ointment. On Saturday morning, the slough came off; and it was again touched, and another slough came off on the Monday following. The preceding night the glans had itched a good deal, and on Tuesday a white speck was observed where the puncture had been made; this speck, when examined, was found to be a pimple full of yellowish matter. This was now touched with the caustic, and dressed as the former. On the Wednesday, the sore on the prepuce was yellow, and therefore was again touched with caustic. On the Friday both sloughs came off; and the sore on the prepuce looked red, and its basis not so hard; but on the Saturday it did not look quite so well, and was touched again; and, when that went off, it was allowed to heal, as also the other, which left a dent in the glans. This dent on the glans was filled up in some months, but for a considerable time it had a bluish cast.

Four months afterwards the chancre on the prepuce broke out again; and very stimulating applications were tried; but these seemed not to agree with it, and nothing being applied, it healed up. This it did several times afterwards, but always healed up without any application to it. That on the glans never did break out; and herein also it differed from the other.

While the sores remained on the prepuce and glans, a swelling took place in one of the glands of the right groin. I had for some time conceived an idea that the most effectual way to put back a bubo was to rub in

mercury

mercury on that leg and thigh, that thus a current of mercury would paſs through the inflamed gland. There was a good opportunity of making the experiment. I had often ſucceeded in this way, but now wanted to put it more critically to the teſt.* The ſores upon the penis were healed before the reduction of the bubo was attempted. A few days after beginning the mercury in this method, the gland ſubſided conſiderably. It was then left off; for the intention was not to cure it completely at preſent. The gland ſome time after began to ſwell again, and as much mercury was rubbed in as appeared to be ſufficient for the entire reduction of the gland; but it was meant to do no more than to cure the gland locally, without giving enough to prevent the conſtitution from being contaminated.

About two months after the laſt attack of the bubo, a little ſharp pricking pain was felt in one of the tonſils in ſwallowing any thing; and, on inſpection, a ſmall ulcer was found, which was allowed to go on till the nature of it was aſcertained, and then recourſe was had to mercury. The mercury was thrown in by the ſame leg and thigh as before, to ſecure the gland more effectually, although that was not now probably neceſſary.

As ſoon as the ulcer was ſkinned over, the mercury was left off, it not being intended to deſtroy the poiſon, but to obſerve what parts it would next affect. About three months after, copper coloured blotches broke out on the ſkin, and the former ulcer returned in the tonſil. Mercury was now applied the ſecond time for thoſe effects of the poiſon from the conſtitution, but ſtill only with a view to palliate.

It was left off a ſecond time, and the attention was given to mark where it would break out next; but it returned again in the ſame parts. It not appearing that any further knowledge was to be procured by only palliating the diſeaſe a fourth time in the tonſil, and a third time in the ſkin, mercury was now taken in a ſufficient quantity, and for a proper time, to complete the cure.

The time the experiments took up, from the firſt inſertion to the complete cure, was about three years.

* The practice in 1767, was to apply a mercurial plaſter on the part, or to rub in mercurial ointment on the part, which could hardly act by any other power than ſympathy.

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The above caſe is only uncommon in the mode of contracting the diſeaſe, and the particular views with which ſome parts of the treatment were directed; but, as it was meant to prove many things, which, though not uncommon, are yet not attended to, attention was paid to all the circumſtances. It proves many things, and opens a field for further conjectures.

It proves firſt, that matter from a gonorrhœa will produce chancres.

It makes it probable that the glans does not admit the venereal irritation ſo quickly as the prepuce. The chancre, on the prepuce, inflamed and ſuppurated in ſomewhat more than three days, and that on the glans in about ten. This is probably the reaſon why the glans did not throw off its ſloughs ſo ſoon.

It renders it highly probable, that to apply mercury to the legs and thighs, is the beſt method of reſolving a bubo; and therefore alſo the beſt method of applying mercury to aſſiſt in the cure, even when the bubo ſuppurates.

It alſo ſhows that buboes may be reſolved in this way, and yet the conſtitution not ſafe; and therefore that more mercury ſhould be thrown in, eſpecially in caſes of eaſy reſolution, than what ſimply reſolves the bubo.

It ſhows that parts may be contaminated, and may have the poiſon kept dormant in them while under a courſe of mercury for other ſymptoms, but break out afterwards.

It alſo ſhows that the poiſon having originally only contaminated certain parts, when not completely cured, can break out again only in thoſe parts.

III. OF THE SYMPTOMS OF THE SECOND STAGE OF THE LUES VENEREA.

This ſtage of the diſeaſe is not ſo well marked as the former; and, as it is of more importance, it requires all our diſcernment to determine what the diſeaſe is.

The parts leſs ſuſceptible of this irritation are ſuch as are more out of the way of the great exciting cauſe, which is the external air, as has been before related. And they begin to take on the venereal action whether it may or it may not have produced its local effects upon the external or expoſed ſurfaces;

ſurfaces; and they even go on with the action, in many caſes, after theſe ſurfaces firſt affected have taken on the action and have been cured, as has been already obſerved. Theſe deeper ſeated parts are the perioſteum, tendons, faſciæ, and ligaments; however, what the parts affected may be when the diſeaſe is in this ſtage, is not always certain; I have known it produce total deafneſs, and ſome of thoſe caſes to end in ſuppuration, attended with great pain in the ear, and ſide of the head. Such caſes are generally ſuppoſed to ariſe from ſome other cauſe; and nothing but ſome particular circumſtance in the hiſtory of the caſe, or ſome ſymptom attending it, can lead the ſurgeon to the nature of the complaint.

When theſe deeper ſeated parts become irritated by this poiſon, the progreſs is more gradual than in the firſt; they have very much the character of ſcrofulous ſwellings, or chronic rheumatiſm, only in this diſeaſe the joints are not ſo ſubject to it as they are in the rheumatiſm. We ſhall find a ſwelling come upon a bone when there has been no poſſible means of catching the infection for many months, and it will be of ſome ſize before it is taken notice of, from having given but little pain. On the other hand, there ſhall be great pain, and probably no ſwelling to be obſerved till ſome time after. The ſame obſervations are applicable to the ſwelling of tendons, and faſciæ.

As theſe ſwellings increaſe by ſlow degrees, they ſhow but little ſigns of inflammation. When they attack the perioſteum, the ſwelling has all the appearance of a ſwelling of the bone, by being firm and cloſely connected with it.

The inflammation, produced in theſe later ſtages of the diſeaſe, can hardly get beyond the adheſive, in which ſtate it continues growing worſe and worſe, and, when matter is formed it is not true pus, but a ſlimy matter. This may ariſe in ſome degree from the nature of the parts not being in themſelves eaſily made to ſuppurate; and, when they do ſuppurate, the ſame languidneſs ſtill continues, in ſo much that this matter is not capable of giving the extraneous ſtimulus, ſo as to excite true ſuppuration or ulceration, even after the conſtitution is cleared of the original cauſe, and then the diſeaſe is probably ſcrofulous. Some nodes, either in the tendons or bones, laſt for years before they form any matter at all; and in this caſe it is doubful whether they are venereal or not, although commonly ſuppoſed to be ſo.

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I have already obſerved that the pain in the firſt ſtages of this diſeaſe is much leſs than might be expected, conſidering the effects produced by the poiſon. The diſeaſe being very ſlow and gradual in its progreſs, its giving little pain may be accounted for. An ulcer in the throat cauſes no great pain; and the ſame may be ſaid of blotches on the ſkin, even when they become large ſores.

When the perioſteum and bones become affected, the pain is ſometimes very conſiderable, and at other times there is hardly any. It is not perhaps eaſy to account for this. We know alſo that the tendinous parts, when inflamed, give in ſome caſes very conſiderable pain, and that of the heavy kind, while in others they will ſwell conſiderably without giving any pain.

Theſe pains are commonly periodical, or have their exacerbations, being commonly worſt in the night. This is common to other aches or pains, eſpecially of the rheumatic kind, which the venereal pains reſemble very much.

When the pain is the firſt ſymptom, it affords no diſtinguiſhing mark of the diſeaſe, it is therefore often taken for the rheumatiſm.

IV. OF THE EFFECTS OF THE POISON ON THE CONSTITUTION.

The poiſonous matter, ſimply as extraneous matter, produces no change whatever upon the conſtitution, and whatever effects it has depend wholly upon its ſpecific quality as a poiſon. The general effects of this poiſon on the conſtitution are ſimilar to other irritations, either local or conſtitutional. It produces fever, which is of the ſlow kind; and when it continues a conſiderable time it produces what is called a hectic diſpoſition, which is no more than an habitual ſlow fever ariſing from a cauſe which the conſtitution cannot overcome. While this exiſts, it is impoſſible that any thing ſalutary can go on in ſuch a conſtitution. The patient loſes his appetite, or even if his appetite is good, loſes his fleſh, becomes reſtleſs, loſes his ſleep, and looks ſallow.*

* This kind of look, although ariſing entirely from a harraſſed conſtitution, is always ſuppoſed to be peculiar to a venereal one. This idea, however, does not ariſe from the look only, but from the leading ſymptoms.

In the firſt ſtage of this diſeaſe, before it begins to ſhow itſelf externally, the patient has generally rigors, hot fits, headachs, and all the ſymptoms of an approaching fever.

Theſe ſymptoms continuing for ſome days, and often for weeks, ſhow that there is ſome irritating cauſe which works ſlowly upon the conſtitution. It is then ſuppoſed to be whatever the invention or ingenuity of the practitioner ſhall call it; but the venereal eruptions or nodes upon either the perioſteum, bones, tendons, or other parts, appearing, ſhow the cauſe, and in ſome degree carry off the ſymptoms of fever and relieve the conſtitution for a little time, but they ſoon recur.

Theſe conſtitutional complaints, however, are not always to be found; the poiſon ſtimulating ſo ſlowly as hardly to affect the conſtitution, unleſs it be allowed to remain in it a long time.

There are a number of local appearances, mentioned by authors, which I never ſaw, ſuch as the fiſſures about the anus, &c. There are alſo a number of diſeaſes, deſcribed by authors as venereal, eſpecially by Aſtruc and his followers, which are almoſt endleſs. The cancer, ſcrofula, rheumatiſm, and gout, have been conſidered as ariſing from it, which may be in ſome meaſure true; but they are with them the diſeaſe itſelf, and all their conſequences, as conſumption, waſting from want of nouriſhment, jaundice, and a thouſand other diſeaſes, which happened many years before the exiſtence of the lues venerea, are all attributed to it.

There is even at this day hardly any diſeaſe the practitioner is puzzled about, but the venereal comes immediately into his mind; and if this became the cauſe of careful inveſtigation, it would be productive of good, but with many the idea alone ſatisfies the mind.

CHAPTER

CHAPTER III.

GENERAL OBSERVATIONS ON THE CURE OF THE LUES VENEREA.

IT has been obſerved before, that there are three forms of the venereal infection, gonorrhœa, chancre, and the lues venerea, which various forms I have endeavoured to account for. As they all three ariſe from the ſame poiſon, and as the two firſt depend only on a difference in the nature of the parts, and the lues venerea on another circumſtance which has been explained, it would be natural to ſuppoſe that one medicine, whatever it be, would cure all the forms of this diſeaſe. But we find from experience, that this does not hold good; for one medicine, that is mercury, cures only the chancre and the lues venerea, and the gonorrhœa is not in the leaſt affected by it; and what is ſtill more remarkable is, that the two, which it cures, are in no reſpect ſimilar, while the gonorrhœa, which it does not cure, is ſimilar in ſome reſpects to the chancre, which it does cure.

It may be remarked in general, that there is not only a difference in the form of the diſeaſe, but alſo in the modes of cure, and in the times neceſſary for the cure of the different forms of the diſeaſe, even when the ſame medicines cure. The gonorrhœa, in its cure, is the moſt uncertain of the three, the chancre next, and the lues venerea the moſt certain, although cured by the ſame medicine which cures the chancre.

A gonorrhœa in ſome caſes ſhall be cured in ſix days, and in others require as many months; which, with regard to time, is about the proportion of thirty to one. A chancre may be ſometimes cured in two weeks, and often requires as many months; which is in the proportion of four to one. The lues venerea in general may be cured in one or two months; which is only two to one. This calculation ſhows the regularity and irregularity, as to time, in the cure of each form of the diſeaſe.

I have formerly obſerved, that indiſpoſitions of the body often affect this diſeaſe very conſiderably, more eſpecially the gonorrhœa and the chancre.

When an increaſe of ſymptoms takes place in a gonorrhœa, from an indiſpoſition of body, nothing ſhould be done for the gonorrhœa, the indiſpoſition of body being only to be attended to; becauſe we have no ſpecific for the gonorrhœa, and in time it cures itſelf. But this practice is perhaps not to be followed in a chancre, or lues venerea. It may be neceſſary in thoſe to continue the mercury, although perhaps more gently; for the mercury is a ſpecific that cannot be diſpenſed with, becauſe neither the chancre nor lues venerea are cured by themſelves, but always increaſe.

This form of the venereal diſeaſe I have divided into two ſtages. When in the parts moſt ſuſceptible of the diſeaſe, which I have called the firſt order of parts, and which appear to be the ſuperficies only; the lues venerea is perhaps ſubject to leſs variety than either the gonorrhœa or chancre, and its mode of cure is of courſe more uniform; although the diſeaſe be leſs eaſily aſcertained, at leaſt for ſome time. In the ſecond order of parts the lues venerea becomes more complicated, and its cure ſtill leſs to be depended upon.

The cure of this form is much more difficultly aſcertained than either of the two former, they being always local, and their effects viſible, become more the object of our ſenſes, ſo that we are ſeldom or ever deceived in the cure; although at the ſame time the cure is often more tedious and difficult; for whenever the ſymptoms of the gonorrhœa or chancre have entirely diſappeared, in general the patient may look upon himſelf as cured of them; but this is not the caſe in the lues venerea.

A lues venerea is the effects of the poiſon having circulated in the blood till it has irritated parts ſo as to give them a venereal diſpoſition, which parts ſooner or later aſſume the venereal action, according to the order of their ſuſceptibility.

When the venereal matter is circulating, I have ſuppoſed that certain parts are irritated by it, and that a vaſt number of other parts eſcape, as is evidently the caſe with the chancre; for in the caſe of a chancre the whole glans, prepuce and ſkin of the penis, have had the matter applied to them, yet only one or more parts are contaminated or irritated by it, all the others eſcaping;

eſcaping; and we often ſee in the lues venerea, that when the parts contaminated aſſume the action, it is confined to them without affecting other parts, although the diſeaſe be allowed to go on for a conſiderable time without any attempt to a cure; and alſo, if theſe parts are imperfectly cured, the diſeaſe returns only in them; therefore theſe effects, although ariſing from the conſtitution, are in themſelves entirely local, ſimilar to the gonorrhœa and chancre, and like them may be cured locally; and the perſon may ſtill continue to have the lues venerea, although not in theſe, yet in other parts, becauſe there may be many other parts in the ſame body that are under the venereal diſpoſition although they may not yet have aſſumed the venereal action. To cure the local and viſible effects of the diſeaſe we muſt attack it through that medium by which it was communicated, that is, the blood, without however conſidering the blood itſelf as diſeaſed, or containing the poiſon, but as the vehicle of our medicine which will be carried by it to every part of the body where the poiſon was carried, and in its courſe it will act upon the diſeaſed ſolids. This practice muſt be continued ſome time after all ſymptoms have diſappeared; for the venereal action may to appearance be ſtopped, and ſymptoms diſappear, and yet all return again, the venereal action not being completely deſtroyed. If the medicine were alſo a cure for the diſpoſition in the parts ſecond in order, and could prevent their coming into action, it would be neceſſary to continue it ſomewhat longer on their account; but this is not the caſe, for the viſible effects, ſymptoms, or appearances, in the firſt order of parts, give way to the treatment, while the parts that have only acquired the diſpoſition, and are ſtill inactive, afterwards aſſume the action and continue the diſeaſe. This deceives the ſurgeon and leaves the ground-work for a ſecond ſet of local effects in the parts ſecond in order; but I have aſſerted, that what will cure an action will not cure a diſpoſition; if ſo, we ſhould puſh our medicine no further than the cure of the viſible effects of the poiſon, and allow whatever parts may be contaminated to come into action afterwards.

The parts that firſt aſſume the venereal action are eaſieſt of cure; and I have ſuſpected that thoſe effects of the diſeaſe being external, were in ſome degree aſſiſted in their cure by the local action of the medicine, which evidently paſſes off through thoſe parts.

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When the diſeaſe has attacked the parts ſecond in order of ſuſceptibility, it generally happens that they are more difficult of cure than the former; therefore when they are affected at the ſame time with the former, and are cured, we may be ſure that the firſt will be alſo cured. From hence, as it would appear that the parts moſt ſuſceptible of the diſeaſe are alſo eaſieſt of cure, it follows that the parts leaſt ſuſceptible of the diſeaſe are alſo moſt difficult of cure; and I believe that this is ſeldom or ever reverſed, therefore thoſe ſecond in order of ſuſceptibility have this advantage, that we have the local complaints for our guide to judge of the whole; and in ſuch we have only to continue the treatment till they all vaniſh, being certain that the cure of the firſt, if there are any, will be involved in thoſe of the ſecond.

As the ſecond are attended with more tumefaction or ſwelling than the firſt, it becomes a queſtion, whether the mercurial courſe ſhould be continued till the whole has ſubſided. But I believe it is not neceſſary to continue the method of cure till the whole tumefaction diſappears; for as thoſe local complaints cannot contaminate the conſtitution by reabſorption, and as the venereal diſpoſition and action from the conſtitution can be cured while the local effects ſtill remain, even where the tumefaction forming nodes on the bones, faſciæ, &c. is carried the length of ſuppuration, there can be no occaſion for continuing the courſe longer than the deſtruction of the venereal action. But this effect of our medicine is not eaſily known, therefore it will be neceſſary to purſue the method of cure till the appearances become ſtationary, and probably a little longer to deſtroy the whole action of the diſeaſe. From theſe circumſtances it would appear that the venereal irritation, when in this ſtage of the diſeaſe, is eaſier of cure than the effects of that irritation, ſuch as the tumefaction.

I. OF THE USE OF MERCURY IN THE CURE OF THE LUES VENEREA.

Mercury in the lues venerea, as in the chancre, is the great ſpecific, and hardly any thing elſe is to be depended upon. It is neceſſary that we ſhould always conſider well the effects of this medicine, both on the conſtitution

tion at large, and the diſeaſe for which it is given. The effects of mercury on a conſtitution will always be as the quantity of mercury in that conſtitution; and when the ſame quantity affects one conſtitution more than another, it is in the proportion of the irritability of that conſtitution, to the powers of mercury, entirely independent of any particular preparation, or any particular mode of giving it.

With regard to the preparations of the medicine, and the modes of applying it, we are to conſider two things; firſt, the preparation and mode that is attended with the leaſt trouble or inconvenience to the patient; and ſecond, the preparation and mode of adminiſtering it that moſt readily conveys the neceſſary quantity into the conſtitution.

Nothing can ſhow more the ungrateful or unſettled mind of man, than his treatment of this medicine. If there is ſuch a thing as a ſpecific, mercury is one for the venereal diſeaſe in two of its forms; yet mankind are in purſuit of other ſpecifics for the diſeaſe, as if ſpecifics were more common than diſeaſes; while at the ſame time they are too often contented with the common mode of treating many other diſeaſes for which they have no ſpecific; and theſe prejudices are ſupported by the Public, who have in their minds a dread of this medicine, ariſing from the want of knowledge of our predeceſſors in adminiſtering it; and many of the preſent age, who are equally ignorant, take advantage of this weakneſs.

Mercury in the conſtitution acts on all parts of the machine, cures thoſe which are diſeaſed, affecting but little thoſe that are ſound. Murcury is carried into the conſtitution in the ſame way as other ſubſtances, either externally by the ſkin, or internally by the mouth: it cannot, however, in all caſes, be taken into the conſtitution in both ways; for ſometimes it happens that the abſorbents on the ſkin will not readily receive it, at leaſt no effect will be produced, either on the diſeaſe or conſtitution, from ſuch application; when this is the caſe it is to be conſidered as a misfortune, for then it muſt be given internally by the mouth, although poſſibly this mode may be very improper in other reſpects, and often inconvenient. On the other hand it ſometimes happens that the internal abſorbents will not take up this medicine, or at leaſt no effect is produced either upon the diſeaſe or conſtitution; in ſuch caſes it is right to try all the different preparations of the

the medicine; for it will ſometimes happen that one preparation will ſucceed when another will not. I have never ſeen a caſe where neither external nor internal applications of mercury were not abſorbed; ſuch a caſe muſt be miſerable indeed.

I may juſt obſerve here, that many ſurfaces appear to abſorb this medicine better than others; and moſt probably all internal ſurfaces and ſores are of this kind; for when we find that thirty grains of calomel rubbed in on the ſkin has no more effect than three or four taken by the mouth, it becomes a kind of proof that the bowels abſorb it beſt; alſo, when dreſſing a ſmall ſore with red precipitate produces a ſalivation, it ſhows that ſores are good abſorbing ſurfaces, eſpecially too when we know that the lues venerea generally ariſes from a chancre.

A patient with a ſtump which produced too much granulations, was dreſſed with ointment containing a large proportion of red precipitate; the ſore was about the ſize of a crown piece. It very nearly brought on a ſalivation, and the patient was obliged to leave it off.

A mulatto woman had upon her leg a very bad ulcer, which was about the breadth of two palms; it was dreſſed with red precipitate mixed with common ointment, which ſoon threw her into a violent ſalivation.

A lady, in the month of December 1782, was burnt over the whole breaſt, neck, and ſhoulders, as alſo between her ſhoulders, on which parts deep ſloughs were formed. The ſores at firſt healed nearly up, and tolerably well for burns; but they broke out anew and then became more obſtinate. Seven months after the accident ſhe came to London, with very large ſores extending acroſs the breaſt, and upon each ſide to the ſhoulders; they were extremely tender and painful. They continued to heal for ſome time after ſhe came to London; but ſhe became ill, having been affected with extreme irritability, loſs of apetite, ſickneſs, and throwing up of her food and medicines. At this time the ſores again began to ſpread, and became very large. After having been two months in town with little advantage, I tried warmer dreſſings, as baſilicon to ſome parts, to ſee if any advantage would ariſe from ſuch treatment, and it was found that theſe parts healed rather faſter than the others; but the ſoreneſs was ſo great, even from the mildeſt dreſſings, that they could only be uſed in part. I

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next tried red precipitate mixed with the ointment; and, that it might increaſe the pain as little as poſſible, I ordered only ten grains to two ounces of the ointment. This appeared to agree better with the ſores than the ointment alone; and we were happy in having found a dreſſing which both haſtened on the cure, and was eaſier than the former. But about the fourth or fifth dreſſing from beginning the uſe of the precipitate, ſhe began to complain of her gums; the next day began to ſpit, and by the ſeventh or eighth day the mouth was ſo ſore, and the ſpitting ſo conſiderable, that upon conſidering the caſe we began to ſuſpect that it might proceed from the red precipitate in the dreſſing. The gums, inſide of the cheeks, and the breath, were truly mercurial. We immediately left off this dreſſing, except to a ſmall corner, and had recourſe to the former dreſſings. In a few days the effects of the mercury abated, and the ſores looked more healthy than ever, and we again began to dreſs part of the ſores with the ointment containing precipitate, which ſtill agreed with them. When the mouth firſt became affected, ſhe had not uſed much above one half of the ointment; and by the time we had diſcovered the cauſe, about three fourths of it had been expended in dreſſings, ſo that there was not quite ten grains of precipitate applied; and although this took up ſeven or eight days, and the ointment muſt have been ſoon removed from the ſore by the diſcharge, yet a conſiderable ſpitting was produced, which laſted above a month. It is hardly to be conceived that above a grain or two could really be taken into the conſtitution; for when we conſider the particles of precipitate were covered with ointment, and a vaſt diſcharge of matter, ſo as ſoon to remove this ſmall quantity from the ſore, we can hardly admit the poſſibility of more being abſorbed; and if this idea of the quantity taken in is juſt, to what muſt we attribute the great ſuſceptibility to the effects of the medicine? Was it the irritable ſtate of the patient at the time? For the ſtate of the conſtitution appeared to me to be that in which the locked jaw often takes place; and I often had this diſeaſe in my mind. The patient afterwards got well by the uſe of an ointment in which pitch was an ingredient. All this tends to ſhow that ſores and internal ſurfaces abſorb better than the ſkin.

Beſides the practicability of getting the medicine into the conſtitution in either way, it is proper to conſider the eaſieſt for the patient, each mode

having its convenience and inconvenience, which ariſes from the nature of the conſtitution of the parts to which it is applied, or from certain ſituations of life of the patient at the time. It is therefore proper to give it in that way which ſuits theſe circumſtances beſt.

To explain this further, we find that in many patients the bowels can hardly bear mercury at all, therefore it is to be given in the mildeſt form poſſible; alſo joined with ſuch other medicines as will leſſen or correct its violent local effects, although not its ſpecific ones on the conſtitution at large.

When it can be thrown into the conſtitution with propriety by the external method, it is preferable to the internal, becauſe the ſkin is not nearly ſo eſſential to life as the ſtomach, and therefore is capable in itſelf of bearing much more than the ſtomach; it alſo affects the conſtitution much leſs; many courſes of mercury, which are abſolutely neceſſary, would kill the patient if taken by the ſtomach, proving hurtful both to the ſtomach and inteſtines, even when given in any form, and joined with the greateſt correctors: on the other hand, the way of life will often not allow it to be applied externally. It is not every one that can find convenience to rub in mercury, therefore they muſt take it by the mouth if poſſible. To obviate the inconvenience often ariſing from the viſible effects of mercury, many preparations have been invented; but any preparation of mercury producing an effect different from the ſimple effects of mercury in that conſtitution, ſuch as ſweating, or an increaſed diſcharge of urine, muſt be ſuppoſed either not to act as mercury, or the ſubſtance with which it is compounded produces this effect; but if its peculiar effects are leſs than uſual, I ſhould very much ſuſpect that the mercury is acting in part as a compound, and not entirely as mercury.

Mercury, like many other medicines, has two effects, one upon the conſtitution and particular parts, which is according to its mode of irritation, independent of any diſeaſe whatever. The other is its ſpecific effects upon a diſeaſed action of the whole body, or of parts, whatever the diſeaſe be, and which effects are only known by the diſeaſe gradually diſappearing. The firſt becomes an object of conſideration for the ſurgeon, as it is in ſome meaſure

meaſure by them he is to be guided in giving this medicine ſo as to have its ſpecific effects ſufficient for the cure of the diſeaſe.

Whatever injury mercury may do to the conſtitution, it is by its viſible effects, and thence the pretended art in avoiding thoſe viſible effects has been too much the cauſe of great impoſition. The part upon which its effects are moſt likely to fall, is the part that is in moſt caſes attempted to be avoided, or guarded againſt, and that is the mouth. I believe that we are not poſſeſſed of any means of either driving the mercury to the mouth, or of preventing it from attacking that part. Cold and warmth are the two great agents mentioned by authors; we find them recommending the avoiding of cold, for fear the mercury ſhould fly to the mouth, as if warmth was a prevention; while others, and even the ſame authors, when talking of bringing the mercury to the mouth, recommend warmth, as if cold were a preventive. This being the caſe, we may reaſonably ſuppoſe that neither the one nor the other have any material effect.

In giving mercury in the venereal diſeaſe, the firſt attention ſhould be to the quantity, and its viſible effects in a given time; which when brought to a proper pitch, are only to be kept up, and the decline of the diſeaſe to be watched; for by this we judge of the inviſible or ſpecific effects of the medicine, which will often inform us that ſome variation in the quantity may be neceſſary.

The viſible effects of mercury are of two kinds, the one on the conſtitution, the other on ſome parts capable of ſecretion. In the firſt it appears to produce univerſal irritability, making it more ſuſceptible of all impreſſions; it quickens the pulſe, alſo increaſes its hardneſs, producing a kind of temporary fever; but in many conſtitutions it exceeds this, acting as it were as a poiſon. In ſome it produces a kind of hectic fever, that is, a ſmall quick pulſe, loſs of appetite, reſtleſſneſs, want of ſleep, and a ſallow complexion, with a number of conſequent ſymptoms; but by the patient being a little accuſtomed to the uſe of it, theſe conſtitutional effects commonly become leſs, of which the following caſes are ſtrong inſtances.

A gentleman rubbed in mercurial ointment for the reduction of two buboes. He had only rubbed in a few times when it affected his conſtitution ſo much that it was neceſſary to leave it off. He was ſeized with feveriſh complaints

of the hectic kind, a ſmall quick pulſe, debility, loſs of appetite, no ſleep, and night ſweats. He took the bark, with James's powder, and aſſes milk, and got gradually rid of theſe complaints. As the buboes were advancing, it was neceſſary to have recourſe to mercury again; and I told him that now it would not produce the ſame effects ſo quickly, nor ſo violently as before. He rubbed in a conſiderable quantity without his conſtitution or mouth being affected; but the buboes ſuppurating, I ordered it to be left off a ſecond time; and when they were opened he had recourſe to the ointment again for the third time, and without producing any diſagreeable effects. The buboes put on a healing diſpoſition for a while and then became ſtationary, ſhowing that a new diſpoſition was forming. He was directed to leave off the ointment and to bathe in the ſea, which he did, and the buboes began to heal. In about three weeks, however, it was thought neceſſary to uſe more friction, and when he began, which was the fourth time, it had almoſt an immediate and violent effect upon his mouth; he left off again till his mouth became a little better, and then returned to the mercury a fifth time, and was able to go on with it.

A ſtout healthy man uſed mercurial friction for a bubo till it affected his mouth; it further brought on very diſagreeable conſtitutional complaints, ſuch as loſs of appetite, watchfulneſs, ſallow complexion, laſſitude from the leaſt exerciſe, and ſwelled legs; and although various means were uſed to reconcile the conſtitution to it, yet it continued to act as a poiſon.

Mercury often produces pains like thoſe of the rheumatiſm, and alſo nodes which are of a ſcrofulous nature, from thence it has been accuſed of affecting the bones, "lurking in them," as authors have expreſſed it.

It may be ſuppoſed to be unneceſſary to mention in the preſent ſtate of our knowledge, that it never gets into the bones in the form of a metal, although this has been aſſerted by men of eminence and authority in the profeſſion; and even the diſſections of dead bodies have been brought in proof of it; but my experience in anatomy has convinced me that ſuch appearances never occur. Thoſe authors have been quoted by others; imaginary caſes of diſeaſe have been increaſed; the credulous and ignorant practitioner miſled, and patients rendered miſerable.

II. OF THE QUANTITY OF MERCURY NECESSARY TO BE GIVEN.

THE quantity of mercury, to be thrown into the conſtitution for the cure of any venereal complaint, muſt be proportioned to the violence of the diſeaſe. Two circumſtances are, however, to be ſtrictly attended to in the adminiſtration of this medicine; which are, the time in which any given quantity is to be thrown in, and the effects it has on ſome parts of the body, as the ſalivary glands, ſkin, or inteſtines. Theſe two circumſtances, taken together, are to guide us in the cure of the diſeaſe; for mercury may be thrown into the ſame conſtitution in very different quantities ſo as to produce the ſame ultimate effect; but the two very different quantities muſt be alſo in different times; for inſtance, one ounce of mercurial ointment, uſed in two days, will have more effect upon the conſtitution than two ounces uſed in ten; and to produce the ſame effect in the ten days, it may perhaps be neceſſary to uſe three ounces or more.

The effects, on the conſtitution, of one ounce, uſed in two days, are conſiderable, and alſo its effects upon the diſeaſed parts; therefore a much leſs quantity in ſuch a way, will have greater effects; but if theſe effects are principally local, that is, upon the glands of the mouth, the conſtitution at large not being equally ſtimulated, the effect upon the diſeaſed parts muſt alſo be leſs, which is to be determined by the local diſeaſe not giving way in proportion to the effects of the mercury on ſome particular part.

If it is given in very ſmall quantities, and increaſed gradually ſo as to ſteal inſenſibly on the conſtitution, its viſible effects are leſs, and it is hardly conceivable how much may at laſt be thrown in, without having any viſible effect at all.*

* To give an idea of this, ten grains of the ointment uſed every day, during ten days, affected a gentleman's mouth. The ointment was of equal parts of mercury and hogs-lard. But by means of omitting the ointment occaſionally, and returning to the uſe of it, he at laſt rubbed in eighty grains every night for a month, without having his mouth, or any of the ſecretions viſibly affected.

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Theſe circumſtances being known, it makes mercury a much more efficacious, manageable, and ſafe medicine, than formerly it was thought to be; but unluckily its viſible effects upon ſome particular parts, ſuch as the mouth, and the inteſtines, are ſometimes much more violent than its general effect upon the conſtitution at large; therefore a certain degree of caution is neceſſary, not to ſtimulate theſe parts too quickly, as that will prevent the neceſſary quantity being given.

The conſtitution, or parts, are more ſuſceptible of mercury at firſt than afterwards: if the mouth is made ſore, and allowed to recover, a much greater quantity may be thrown in a ſecond time, before the ſame ſoreneſs is produced; and indeed I have ſeen caſes where it could not be reproduced by as much mercury as poſſibly could be thrown in. Upon a renewal of the courſe of mercury therefore the ſame precautions are not neceſſary as at firſt. We are, however, every now and then deceived by this medicine, it being hardly poſſible to produce viſible effects at one time; and afterwards the mouth, and inteſtines, ſhall all at once be affected.

Mercury, when it falls on the mouth, produces in many conſtitutions violent inflammation, which ſometimes terminates in mortification. The conſtitutions, in which this happens, I ſuſpect are of the eryſipelatous kind, or what are called the putrid; therefore in ſuch, greater caution is neceſſary. Mercury in general, that is where it only produces its common effects, ſeldom or never does any injury to the conſtitution. It ſhould ſeem only to act for the time, and to leave the conſtitution in an healthy ſtate. But this is not always the caſe, for probably mercury can be made to affect every conſtitution very materially, being capable of producing local diſeaſes, as has been mentioned; and alſo capable of retarding the cure of chancres, buboes, and certain effects of the lues venerea, after the poiſon has been deſtroyed.

III. OF THE SENSIBLE EFFECTS OF MERCURY UPON PARTS.

The ſenſible effects of mercury are generally an increaſe of ſome of the ſecretions, a ſwelling in the ſalivary glands, and increaſe of ſaliva; an increaſe

creaſe of the ſecretion of the bowels, which produces purging, and an increaſe of the ſecretion of the ſkin, producing ſweat, alſo often an increaſe of the ſecretion of urine. Sometimes one of theſe ſecretions only is affected, ſometimes more, and ſometimes all of them together. But the effects upon the mouth are the moſt frequent.

Mercury often produces headaches, and alſo coſtiveneſs, when its action on other parts becomes ſenſible, eſpecially upon the glands of the mouth.

When the mercury falls upon the mouth, it does not affect all parts of it equally, ſometimes attacking the gums, at other times the cheeks, which become thickened, and ulcerate, while the gums are not in the leaſt affected, as appears by the patient being capable of biting any thing hard.

Mercury, when it falls upon the mouth, and parts belonging to the mouth, not only increaſes the diſcharge of thoſe parts, but it brings on great tumefaction, which is not of the true inflammatory kind, where coagulable lymph is thrown out, but rather reſembling eryſipelatous tumefaction. The tongue, cheeks, and gums ſwell, and the teeth become looſe; all which effects are in proportion to the quantity of mercury given, and ſuſceptibility of the parts for ſuch irritation. It produces great weakneſs in the parts, in which ulceration eaſily takes place, eſpecially if they are in the leaſt irritated, which is often done by the teeth, and even mortification ſometimes enſues. How far it produces ſimilar effects when it falls on other parts, I do not know. The ſaliva, in ſuch caſes, is generally ropy, as if principally from the glands affected. The breath acquires a particular ſmell.

As mercury generally produces evacuations, it was naturally imagined that it was by this means that it effected a cure of the venereal diſeaſe; but experience has taught us, that in curing the venereal diſeaſe by this medicine, evacuations of any kind, produced by it, are not at all neceſſary; and this might have been ſuppoſed, as ſimilar evacuations, produced by other medicines, are of no ſervice; therefore it was reaſonable to imagine that theſe evacuations, when produced by mercury, were alſo of no ſervice; except we could ſuppoſe that the evacuation, produced by the mercury, was not the ſame with that produced by other medicines, but that it was a ſpecific evacuation; that is to ſay, a diſcharge carrying off the venereal poiſon by its union with the mercury; and therefore the faſter the mercury went off, the

ſooner

ſooner would the poiſon be carried out of the conſtitution. But this is not found to be the caſe in practice; on the contrary, evacuations produced by the medicine retard the cure, eſpecially if the ſecretary organs are too ſuſceptible of this ſtimulus; for then the quantity which is neceſſary, or ſufficient for the cure of the diſeaſe, cannot be taken in, the effects of the medicine upon particular parts being greater than the patient can bear; and the quantity of mercury to be thrown into the conſtitution muſt be limited and regulated according to the quantity of evacuation, and not according to the extent of the diſeaſe. On the other hand, if it is given with care, ſo as to avoid violent evacuation, any quantity may be thrown in ſufficient for the cure of the diſeaſe.

Certain evacuations may be ſuppoſed to be a mark of the conſtitutional effects of mercury; but they are not to be entirely depended upon, the ſecretions being only a proof of the ſuſceptibility of ſome parts to ſuch a ſtimulus; however, it is probable that in general they are a good gauge of its conſtitutional effects. Some have gone ſo far as to ſuppoſe that quantity of mercury alone, without any ſenſible effects, is ſufficient for the cure of the diſeaſe; and this is in ſome degree the caſe, but not completely ſo, for we have no good proof of its affecting the conſtitution but by its producing an increaſe of ſome of the ſecretions.

IV. OF THE ACTION OF MERCURY.

Mercury can have but two modes of action, one on the poiſon, the other on the conſtitution; we can hardly ſuppoſe it to act both ways. If mercury acted upon the poiſon only, it might be ſuppoſed to be in two ways, either by deſtroying its qualities by decompoſing it, or by attracting it and carrying it out of the conſtitution. If the firſt were the action of mercury, then we might reaſonably ſuppoſe that quantity alone would be the thing to be depended upon; if the ſecond, that the quantity of evacuation would be the principal circumſtance.

But if it act upon the principle of deſtroying the diſeaſed action of the living parts, counteracting the venereal irritation by producing another of a different

different kind, then neither quantity alone, nor evacuation, will avail much; but it will be quantity joined with ſenſible effects that will produce the quickeſt cure, which from experience we find to be the caſe. But although the effects, that mercury has upon the venereal diſeaſe, are in ſome degree in proportion to its local effects on ſome of the glands, or particular part of the body, as the mouth, ſkin, kidneys and inteſtines, yet it is not exactly in this proportion, as has been mentioned. When mercury diſagrees as it were conſtitutionally, producing great irritability and hectic ſymptoms, this action or irritation is not a counter irritation to the venereal diſeaſe, but is a conſtitutional irritation, having no effect on the diſeaſe, which continues to increaſe. Mercury, loſing its effects upon the diſeaſe by uſe, gives a proof that it neither acts chymically, nor by carrying off the poiſon by evacuation, but by its ſtimulating power.

The effects will always be in proportion to the quantity in a given time, joined with the ſuſceptibility of the conſtitution to the mercurial irritation. Theſe circumſtances require the minuteſt attention; and in order to procure its greateſt action with ſafety, and to procure this in the moſt effectual way, it muſt be given till it produces local effects ſomewhere, but not too quickly, that we may be able to throw in a proper quantity; for local effects produced too quickly prevent the ſufficient quantity being thrown in for counteracting the venereal irritation at large. I have ſeen caſes where the mercury very readily acted locally, and yet the conſtitution was hardly affected by it, for the diſeaſe did not give way.

A gentleman had a chancre which he deſtroyed with cauſtic, and dreſſed the ſore with mercurial ointment. He had alſo a ſlight uneaſineſs in one of his groins, which went no further, but which ſhowed an abſorption of the poiſon. The chancre ſoon healed, and he rubbed in about two ounces of mercurial ointment. He began this courſe with ſmall quantities, that is, a ſcruple at each rubbing, and increaſed it; however it ſoon affected his mouth, and he ſpit for about a month. Two months after he had a venereal ulcer in one of his tonſils. Here was a conſiderable ſenſible effect from a ſmall quantity of mercury, which proved ineffectual, becauſe its ſpecific effects, as I apprehend, were not in proportion to its ſenſible effects; the ſalivary glands being too ſuſceptible of the mercurial irritation.

On the other hand, I have ſeen caſes, where quantity did not anſwer till it was given ſo quickly as to affect the conſtitution in ſuch a manner as to produce local irritation, and conſequently ſenſible evacuations, which is a proof that the local effects are often the ſign of its ſpecific effects on the conſtitution at large, and ſhows that the ſuſceptibility of the diſeaſed parts, to be affected by the medicine, is in proportion to the effects of it upon the mouth. Its effects are not to be imputed to evacuation, but to its irritation, therefore mercury ſhould be given, if poſſible, ſo as to produce ſenſible effects upon ſome parts of the body, and in the largeſt quantity of mercury that can be given to produce theſe effects within certain bounds; and that theſe ſenſible effects ſhould be the means of determining how far the medicine may be puſhed, in order to have its beſt effects upon the diſeaſe without endangering the conſtitution. The practice here muſt vary according to circumſtances; and if the diſeaſe is in a violent degree, leſs regard muſt be had to the conſtitution, and the mercury is to be thrown in in larger quantities; but if the diſeaſe be mild, it is not neceſſary to go beyond that rule, although it is better to keep up to it on purpoſe to cure the diſeaſe the ſooner.

If the diſeaſe is in the firſt order of parts, a leſs quantity of mercury is neceſſary than if it were in the ſecond order of parts, and had been of long ſtanding, with its firſt appearances only cured and the venereal diſpoſition ſtill remaining in the ſecondary parts. To cure the diſeaſe, whether in the form of chancre, bubo, or lues venerea, probably the ſame quantity of mercury is neceſſary; for one ſore requires as much mercury as fifty ſores in the ſame perſon, and a ſmall ſore as much as a large one; the only difference, if there is any, muſt depend upon the nature of the parts affected, whether naturally active or indolent. If there be any material difference between the recent and conſtitutional, which, I apprehend, there is, it may make a difference in the quantity. I do conceive that the recent are upon the whole more difficult to cure; at leaſt they commonly require longer time, although not always.

Having thus far premiſed theſe general rules and obſervations, I ſhall now give the different methods of adminiſtering mercury.

V. OF

V. OF THE DIFFERENT METHODS OF GIVING MERCURY EXTERNALLY—INTERNALLY.

PREVIOUSLY to the giving of mercury, it is very proper to underſtand, as much as poſſible, the conſtitution of the patient with regard to this medicine, which can only be known in thoſe who have already gone through a mercurial courſe; but as many of our patients are obliged to undergo this treatment more than once, it becomes no vague inquiry; for as there are many who can bear this medicine much better than others, it is very proper that this ſhould be known, as it will be a direction for our preſent practice. I think that few conſtitutions alter in this diſpoſition; although I knew one caſe which admitted of a conſiderable quantity at one time without being viſibly affected; but about a twelvemonth after, the patient was affected with a very little.

When mercury is given to cure the lues venerea, whatever length we mean to go in the ſenſible effects of it, we ſhould get to that length if poſſible, and we ſhould keep up to it. For we ſhall find it difficult to bring its effects to that ſtandard again if we allow it to get below it. If the mercury ſhould get beyond what we intended, we ſhould be very much upon our guard in lowering it; and ſhould probably begin to give it again before its effects are reduced to the intended ſtandard: for the ſame quantity now will not operate ſo powerfully as before; inſomuch that what at firſt produced greater effects than was intended, will not be ſufficient afterwards.

Mercury is beſt applied externally in form of an ointment. Unctuous ſubſtances keep it divided, attach it to ſurfaces, and do not dry; it may alſo be ſuppoſed that they become a vehicle for the mercury, and carry it through the abſorbents to the general circulation; for it is probable that oil is as eaſy of abſorption as watery ſubſtances.

If the ſymptoms are mild in the firſt order of parts, and the patient not accuſtomed to mercury, or it is known that he cannot bear the medicine in great quantity, and it is intended to conduct the cure by almoſt inſenſible means, it is proper to begin with ſmall quantities. One ſcruple, or half a

drachm, of an ointment made of equal parts of quickſilver and hogs-lard, rubbed in every night for four or ſix nights will be ſufficient to begin with. If the mouth is not affected, the quantity may be gradually increaſed till two or three drachms are rubbed in at each time; but if the firſt quantity has affected the mouth we may be almoſt certain that the glands of the mouth are very ſuſceptible of the mercurial ſtimulus; therefore it will be proper to wait two or three days till that effect begins to go off.

When we begin the ſecond time, the quantity may be gradually increaſed, at leaſt a ſcruple every time, till two drachms or more are rubbed in each night, which may be done without affecting the patient very conſiderably a ſecond time, as has been already obſerved.

If all the ſymptoms gradually diſappear, there is no more to be done but to continue this practice for a fortnight longer by way of ſecurity.

This method, ſteadily purſued, will cure moſt recent caſes of lues venerea; but it is not ſufficient if the diſeaſe has been merely kept under by ſlight courſes of mercury; a greater quantity becomes neceſſary, from a kind of habit the conſtitution has acquired, by which it is rendered leſs ſuſceptible of the mercurial ſtimulus.

If the diſeaſe ſhould return in the ſecond order of parts, we may be certain the ſame quantity of mercury will not be ſufficient to cure them, their action being ſlow under the venereal irritation, therefore requiring more than what had been firſt given.

I may be allowed to remark, that where the venereal ſymptoms have been ulcers in the mouth or throat, I have ſuſpected that the mercury being brought to the mouth, and the ſaliva being impregnated with it, and acting as a mercurial gargle, cured thoſe parts locally; and that the conſtitution has remained ſtill tainted; the mercurial action in it having been much inferior to what it was in the mouth. Perhaps ſomething ſimilar may take place in eruptions of the ſkin where the mercury paſſes off by ſweat; for we know that ſulphur will cure the itch by paſſing off in perſpiration. If theſe are facts, then it may in ſome degree account for the local ſymptoms in the firſt order of parts being eaſier of cure than thoſe in the ſecond.

The manner of living under a mercurial courſe need not be altered from the common, becauſe mercury has no action upon the diſeaſe which is more favoured

favoured by one way of life than another. Let me aſk any one what effect eating a hearty dinner, and drinking a bottle of wine can have over the action of mercury upon a venereal ſore, either to make it affect any part ſenſibly, as falling upon the glands of the mouth, or prevent its effect upon the venereal irritation? In ſhort, I do not ſee why mercury ſhould not cure the venereal diſeaſe under any mode whatever of regimen or diet.

I own, however, that I can conceive cold affecting the operations of mercury upon the venereal diſeaſe; it is poſſible that cold may be favourable to the venereal irritation, and therefore contrary to that produced by mercury; and there is ſome ſhow of reaſon for ſuppoſing this; for I have before aſſerted that cold was an encourager of the venereal irritation; and therefore keeping the patient warm may diminiſh the powers of the diſeaſe while under the cure.

Mercury, given internally, is in many caſes ſufficient, although in general it is not ſo much to be depended on as the external application; therefore I would not recommend it, or give it in caſes where the diſeaſe has not been ſufficiently cured by former courſes of mercury. It is the moſt convenient way of giving this medicine; for many will ſwallow a pill who do not chooſe to rub the body with the ointment: indeed there are many circumſtances in life which make this mode of introducing it into the conſtitution the moſt convenient; but, on the other hand, there are many conſtitutions that cannot bear mercury given internally. When theſe two circumſtances meet in the ſame patient it is unfortunate.

Mercury taken internally, often produces very diſagreeable effects upon the ſtomach and inteſtines, cauſing ſickneſs in the one, and griping and purging in the other.

If it be found neceſſary to give it internally, and it diſagrees either with the ſtomach or inteſtines, or both, even in the moſt ſimple preparation, its effects, whatever they are, muſt be corrected or prevented, by joining with the mercury other medicines. If it affect the ſtomach only, the mercury may be joined with ſmall quantities of the eſſential oils, as the eſſential oil of cloves, or camomile flowers, which will in many caſes take off that effect. If it diſagree both with the ſtomach and bowels, which I believe ariſes either from the mercury meeting with an acid in the ſtomach, by which part

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of it is diſſolved, forming a ſalt, or from being given in the form of a ſalt, both of which will generally purge and become the cauſe of their own expulſion. There are two ways of obviating theſe effects; the firſt is, by preventing the ſalt from forming; the ſecond, by mitigating its effects on the inteſtines if forming, by taking off their irritability. To prevent the ſalt from forming, the beſt way is to join the mercury with alkaline ſubſtances, either ſalts, or earths; and when given in a ſaline ſtate, it may be joined with opium, or ſome of the eſſential oils.

To prevent the formation of the ſalt, take of the preparations of mercury, ſuch as mercurius calcinatus, mercurius fuſcus, or calomel, forming them into pills, with the addition of a ſmall quantity of ſoft ſoap, or any of the alkaline ſalts; the alkaline ſalt alſo prevents the pill from drying: or inſtead of theſe a calcarious earth may be joined with the mercury, ſuch as chalk or crabs-eyes: upon this principle is the mercurius alkalizatus, which is crude mercury rubbed down with crabs-eyes. But theſe ſubſtances add conſiderably to the bulk of the medicine, no leſs than twenty grains being neceſſary for a doſe; which contains ſeven grans and an half of crude mercury. The mercurius calcinatus, rubbed with a ſmall portion of opium, makes an efficacious pill, and in general agrees well both with the ſtomach and bowels. Opium has long been joined with mercury to cure the venereal diſeaſe. By ſome as much has been attributed to the opium as the mercury; however, opium ſhould be given with care, for it is not every conſtitution with which it agrees, often producing irritability, in ſome laſſitude and debility, in others ſpaſms.

If the mercury is not given in the above manner, but in the form of a ſalt, or the ſalts are allowed to form, then it ſhould be joined with one third of opium, and a drop of the oil of cloves, or camomile, which will make it agree with the ſtomach, and prevent its purging; or, if it is found ſtill to diſagree both with the ſtomach and bowels, compound it ſtill further, by joining with the mercury the alkaline ſalts, the opium, and ſome eſſential oil.

A grain of mercurius calcinatus made into a pill, with the addition of ſuch medicines as the ſtomach or bowels may require, may be given every night for a week; and if in that time it has not affected the mouth, it may be

be repeated evening and morning; and after the patient has been accuſtomed to the medicine, and it is found not to fall much upon the mouth, it may be increaſed to two grains in the evening, and one in the morning.

The ſame directions hold equally good either with the mercurius fuſcus, or calomel; but it requires more of theſe laſt preparations of mercury to have the ſame medicinal effect upon the diſeaſe, than of the before-mentioned; perhaps the proportion of their effects are about two, or three to one. Why this ſhould be the caſe is probably not eaſily accounted for, the quantity of mercury being very nearly the ſame in a given weight in both, for in eight grains of calomel there are ſeven grains of crude mercury. Three grains of theſe preparations appear only equal to one of the mercurius calcinatus. The crude mercury given in the ſame quantities with either of the former appears the leaſt efficacious of all; for fifteen grains of crude mercury rubbed down with any mucilage, ſeems only equal to one or two of the mercurius calcinatus.

The corroſive ſublimate, which is a ſalt capable of ſtimulating violently, is generally given in ſolution in common water, brandy, or ſome of the ſimple waters, and has been uſed with the appearance of conſiderable ſucceſs. It would appear that it removes ulcers in the mouth, as ſoon, if not ſooner than any of the other preparations; but this I ſuſpect ariſes from its application to theſe parts in its paſſage to the ſtomach, acting upon them locally as a gargle; however, from experience, it appears not to have ſufficient powers over the venereal irritation; in recent caſes only removing the viſible local effects, without entirely deſtroying the venereal action; for many more have been found to relapſe after having taken this preparation, than from many of the others; which is owing to its paſſing very readily off by the ſkin. Beſides, it diſagrees much more with the ſtomach and inteſtines, than any of the other preparations.

A grain of this medicine diſſolved in about an ounce of ſome fluid, is generally the doſe, and increaſed according as it agrees with the bowels, and according to its effects upon the mouth, and diſeaſe.

As corroſive ſublimate contains an acid, and as you muſt be guided by the effects of the acid on the bowels, the quantity of mercury you can give in this form is neceſſarily ſmaller than in the other preparations. Ward's

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drop, containing leſs acid, can be given in larger quantity, and is more efficacious on that account. Perhaps any of theſe preparations united with a ſcruple of gum guaiacum may have more effect than when given alone; ſince guaiacum is found to have conſiderable effects on the venereal diſeaſe.*

This practice, continued for two months, will in general cure a common lues venerea; but here it is not meant that any time ſhould be ſpecified. After all the ſymptoms of the diſeaſe have diſappeared, this courſe ſhould be continued at leaſt a fortnight longer; but if the ſymptoms diſappear very ſuddenly, as they often do, perhaps within eight or ten days, probably from the medicine going off by thoſe ſurfaces where the diſeaſe appears, the medicine ſhould be continued three weeks, or perhaps a month longer, and the doſe increaſed. In ſuch caſes the viſible local effects appear to be cured, while a venereal diſpoſition remains in the parts.

Various are the preparations of mercury recommended for internal uſe, while practitioners have generally been ſatisfied with but one for external application. Every practitioner finds ſome one of the preparations anſwering better to appearance in ſome one caſe than another, which caſts the balance in favour of that medicine in his mind; or others finding the bad effects of a particular preparation at ſome one time, have generally condemned that preparation; not to mention that deceit is often practiſed in the cure of this diſeaſe. One would naturally ſuppoſe that the ſimpleſt preparation is the beſt, that which is eaſieſt diſſolved in the animal juices, does leaſt miſchief to the ſtomach, or general health, and is leaſt diſturbed or hindered in its operations; for we can hardly ſuppoſe that any ſubſtance joined with mercury, which alters either its chymical or mechanical properties out of the body, can add to its power in the body, except a ſubſtance which had a ſimilar power when acting alone. The preference generally given to the ointment ſhows this; and if we could find a preparation ſtill more ſimple than the ointment, that preparation ſhould be uſed in preference to the crude mercury.

* See page 367, 376.

VI. OF

VI. OF THE CURE OF THE DISEASE IN THE SECOND OR THIRD STAGE.

In the more advanced ſtages of the diſeaſe, the mercurial courſe muſt be puſhed further. The greateſt quantity of that medicine that the patient can bear at a time, is to be thrown in and continued with ſteadineſs till there is great reaſon to ſuppoſe the diſeaſe is deſtroyed. It will not be poſſible in ſuch caſes to prevent the mouth from being conſiderably affected, the quantity of mercury neceſſary to be uſed for the cure of theſe ſtages of the diſeaſe being ſuch as will in moſt caſes produce that effect.

Before the diſeaſe has advanced ſo far, the patient moſt probably has taken mercury, and it is proper to inquire how he has been affected by it, and what quantity of it he can bear, which will in ſome degree direct us in the quantity now to be begun with. If the patient has not taken mercury for a conſiderable time, and is eaſily affected by it, which is the caſe that admits of the leaſt quantity, it will be neceſſary to begin cautiouſly, regulating the quantity according to circumſtances; but if the perſon has taken mercury lately, although eaſily affected by it, more freedom may be uſed on returning to it, becauſe it will have leſs power on his mouth, as alſo on the diſeaſe; again, if the perſon has been taking mercury very lately, and is with difficulty affected by it, which is the caſe that admits of the greateſt quantity, then it may be adminiſtered freely ſo as to affect the conſtitution in the proper time. If the mercury is brought to the mouth in ſix or eight days, and a conſiderable ſoreneſs is produced in twelve, it will in general be a good beginning. In ſuch caſes the conſtitution is, if poſſible, to be ſurprized by the medicine ſo as to produce its greateſt effects, but with ſuch caution as to be able to keep up theſe effects by quantity.

Mercurial friction will anſwer better than mercury given internally; for in this way we are ſurer of throwing in a larger quantity in a given time than could be taken internally without hurting the ſtomach.

The quantity of mercury applied in this way ſhould be under certain circumſtances, in an inverſe proportion to the ſurface on which it is applied,

and the ſurface ſhould be completely covered with the ointment; for half an ounce of mercurial ointment, rubbed in upon a given ſurface, will have nearly the ſame effect as one ounce rubbed in on the ſame ſurface; therefore one ounce to have double the effect ſhould have double the ſurface. The quantity of ointment muſt therefore be adapted to the quantity of ſurface, for on a certain extent of ſurface no more than a determined quantity of ointment can be applied ſo as to be abſorbed; and applying a greater quantity would be uſeleſs; and if the quantity of ſurface is greater, the ſame portion of ointment cannot be diffuſed ſo as to employ fully all the abſorbents. Every ſurface which is uſed may therefore have its full quantity of ointment, but certainly ſhould not have more, if we are to attribute the effects of the mercury to the quantity.

It has moſt probably been always the practice to rub the mercury well in, as it is termed; but I ſuſpect that this aroſe rather from an idea of the ſurface being porous like a ſponge, than of abſorption being performed by the action of veſſels; and it is probable that this action in the veſſels producing abſorption may be rather diſturbed than excited by friction.

How long the courſe is to be followed is not to be exactly aſcertained, it may be thought proper to continue it till the local appearances, as nodes, have ſubſided; but I ſuſpect that this is hardly neceſſary, except they give way readily; for in ſuch caſes the local complaints, or tumefaction, &c. generally require a longer time to be removed than the venereal action; and local applications muſt be of ſervice, eſpecially if ſuch tumefactions are obſtinate.

The manner of living under ſuch a ſevere courſe, which is in every reſpect weakening, is to be particularly attended to; the patient muſt be ſupported; and the local effects of the medicine, in the mouth, preventing his taking many kinds of nouriſhment, eſpecially ſuch as are of a ſolid form, fluids muſt form his only nouriſhment, and theſe ſhould be ſuch as will become ſolid after they are ſwallowed; milk is of this kind. An egg beat up with a little ſugar, and a little wine; ſago, ſalep, &c. form a proper diet. In many caſes wine and bark muſt be given through the whole courſe. Sugar is perhaps one of the beſt reſtoratives of any kind we are acquainted with, when a conſtitution has been very much debilitated by long faſting, from whatever

whatever cauſe, whether from the want of food when in health, or in the time of diſeaſe, or where the food has not been allowed to anſwer the conſtitutional waſte, as in a courſe of mercury, and when the diſeaſe or courſe of mercury is gone, then ſugar will reſtore ſuch conſtitution, probably, better than any thing elſe.

Although it is not a common opinion, and therefore not a common practice to give ſugar entirely with this view, yet there are ſufficient proofs of its nutritive quality over almoſt every other ſubſtance. It is a well-known fact, that all the negroes in the ſugar iſlands become extremely luſty and fat in the ſugar-cane ſeaſon; and they hardly live upon any thing elſe. The horſes and cattle that are allowed to feed upon them all become fat. The hair of the horſe becomes fine. Birds who feed upon fruit never eat it till it becomes very ripe, when it has formed the greateſt quantity of ſugar, and even then only on ſuch as furniſh the largeſt quantity of ſugar. Inſects do the ſame; but we cannot have a ſtronger inſtance of this fact than in the bee. Honey is compoſed of ſugar, with ſome other juices of plants, with a little eſſential oil; but ſugar is the principal ingredient. When we conſider that a ſwarm of bees will live a whole winter on a few pounds of honey, keep up a conſtant heat about ninety-five or ninety-ſix degrees, and the actions of the animal œconomy equal to that heat, we muſt allow that ſugar contains perhaps more real nouriſhment than any other known ſubſtance.

We ſee too that whey is extremely fattening, which is the watery part of the milk, containing neither the oil nor the coagulable matter; this ariſes principally from the ſugar it contains, for being compoſed of the watery part it holds all the ſugar of the milk in ſolution. If the milk is allowed to become ſour it is not ſo fattening, becauſe it is the ſugar which is become ſour.

Although the nutritive qualities of ſugar have not been ſo generally known as to introduce it into univerſal practice, yet they have not entirely eſcaped the notice of practitioners. Mr. Vaux, from obſerving the negroes in the Weſt Indies growing fat in the ſugar ſeaſon, has been induced to give it in very large quantities to many of his patients, and with very good effects. Honey is perhaps as good a mode of taking this ſubſtance as any:

ſweetening every thing that is either eat or drunk, whether by ſugar in honey, or ſugar alone, is probably immaterial; yet it is probable that the other ingredients in honey may add to its nutritive quality.

VII. OF LOCAL TREATMENT.

If the local effects have gone no further than inflammation and ſwelling, either of the ſoft or hard parts, moſt probably no local treatment will be neceſſary, for the treatment of the conſtitution will in general remove them entirely.

It ſometimes, however, happens that the local complaints will not give way, but the parts remain ſwelled in an indolent and inactive ſtate, even after there is every reaſon for ſuppoſing the conſtitution is perfectly cured. In ſuch caſes the conſtitutional treatment is to be aſſiſted by local applications of mercury to the part, either in the form of a plaſter or ointment. The latter is by much the beſt mode. If theſe are not ſufficient, as often happens, we muſt endeavour to deſtroy this diſpoſition by producing an inflammation of another kind. I have ſeen a venereal node which gave excruciating pain, cured by an inciſion only being made down to the bone the whole length of the node; the pain has ceaſed, the ſwelling has decreaſed, and the ſore healed up kindly, without the aſſiſtance of a grain of mercury. Bliſters have been applied to nodes with ſucceſs; they have removed the pains and diminiſhed the ſwellings; ſo far furniſhing a proof, that local treatment may aſſiſt mercury in many caſes.

This treatment has not only been uſed to aſſiſt mercury in thoſe caſes where the medicine did not appear to be equal to the diſeaſe, but it has been uſed at the commencement of the cure, and even before mercury had been applied; but it was ſtill thought neceſſary to go through the ſame mercurial courſe as if nothing had been done to the local complaints.

It may be aſked, What advantage ariſes from the inciſion or application of the bliſter? The advantage is immediate relief from violent pains; and as there are two powers acting, it is natural to ſuppoſe the cure will be more ſpeedy.

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After all the above-mentioned trials, it may happen that the local effects ſhall ſtill remain, forming as it were a new diſeaſe, which mercury may increaſe, and therefore other methods of cure may be tried, as will be deſcribed hereafter.

VIII. OF ABSCESSES—EXFOLIATION.

When an abſceſs forms in a node in the perioſteum, the bones are generally affected and make part of the abſceſs. Great attention ſhould be paid to them, for ſuppurations in them are not like ſuppurations in common abſceſſes, they are ſeldom produced from the true ſuppurative inflammation, and therefore are ſlow in their progreſs, rarely producing true matter, but a mucus, ſomething reſembling ſlime, which lies flat upon the bone. This circumſtance makes it difficult to determined when ſuppuration has taken place; and in many caſes to detect matter, even where it is formed. Another circumſtance, which renders the preſence of matter in ſuch caſes doubtful, is, that the progreſs of the diſeaſe is generally checked very early by the uſe of mercury. This matter is often reabſorbed during a mercurial courſe; and it is proper, particularly in an early ſtate of the complaint, to give it this chance; but if the abſorption does not take place, and the complaint is in an advanced ſtate, it muſt be opened.

The ſurgical treatment of the parts under ſuch circumſtances is the ſame as in other diſeaſes of theſe parts; opening with great freedom is abſolutely neceſſary; for the more parts are expoſed, the more inclinable they are in general to heal, and ſtill more ſo here; for violence aſſiſts in deſtroying the venereal diſpoſition. No ſkin covering a bone ſhould be removed from an abſceſs, eſpecially in the lower extremities.

If the abſceſs is opened freely, and an exfoliation takes place, which is generally the caſe, it is to be treated as any other exfoliation. Exfoliations ſucceed much better here than in many other caſes, becauſe the diſeaſe from which they proceed can generally be corrected, which is not the caſe in many diſeaſes of bones where exfoliation takes place. Caſes, however, ſometimes occur in which, after the veneral diſpoſition has been corrected, another diſeaſe takes place in the bone, the nature of which will be explained when

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we ſhall conſider the effects remaining after the diſeaſe is cured, and the diſeaſes ſometimes produced by the cure.

IX. OF NODES ON TENDONS, LIGAMENTS, AND FASCIÆ.

THE obſervations, made on the nodes of the perioſteum and bones, are applicable to ſwellings and ſuppurations of the ligaments and faſciæ; but it is ſtill more difficult to aſcertain the preſence of matter in them than in the former.

When a thickening only of the ligaments or faſciæ is the conſequence of the diſeaſe, it is very obſtinate, as in many caſes the diſeaſed part may be cleared of all venereal taint and ſtill the ſwellings remain. Bliſters may often be applied here with ſucceſs; but if they fail, then it will be abſolutely neceſſary to make an inciſion into the part, to excite a more vigorous action; for although the complaint has nothing venereal in it, nor is any contamination to be feared from it in future; yet as it leaves often very obſtinate and diſagreeable ſwellings, which neither give way to medicine nor time, it is proper to uſe every means for their removal.

X. OF CORRECTING SOME OF THE EFFECTS OF MERCURY.

FORMERLY, when the management of mercury was not ſo well underſtood, nor its effects in this diſeaſe ſo well known as they are at preſent, it was generally ſuppoſed to act by evacuation from the ſalivary glands, and was therefore always given till that evacuation took place; and, as its effects in the cure were imagined to be in proportion to the quantity of this evacuation, it was puſhed as far as poſſible, without endangering ſuffocation. From this treatment it often happened in thoſe conſtitutions which were very ſuſceptible of the mercurial irritation, and in which the medicine produced much more violent effects on ſome particular ſecretions than could be wiſhed, that recourſe was obliged to be had to medicines correcting the

effects

effects of mercury; as theſe effects were often an hindrance to its being given in ſufficient quantities for the cure of the diſeaſe.

I mentioned, when treating of the effects of mercury, that the ſenſible increaſe of the ſecretions, produced by it, were in the following order: firſt of ſaliva, then ſweat, then urine, and often of the mucus of the inteſtines, producing purging; I alſo obſerved, that when any of thoſe ſecretions became too violent, the hand of the ſurgeon was tied up till they were moderated. Attempts have been made to leſſen thoſe effects in two ways, either by the deſtruction of its power on the body in general, or by its removal, but neither of theſe means have ſucceeded. It never has once been thought neceſſary to attempt to leſſen its powers on the organs of ſecretion, ſo as ſtill to retain the ſame quantity in the conſtitution, or even to throw in more, which, if it could be effected, would be ſometimes of great ſervice; but as we are not yet acquainted with powers ſufficient for theſe purpoſes, we are obliged to obſerve great caution in our mode of giving the medicine.

I have endeavoured to ſhow that this medicine need not be given with a view to procure thoſe evacuations; and that it may be given in any quantity without increaſing either of thoſe ſecretions in any evident degree; however, after every precaution, we may ſtill be deceived, and the medicine will every now and then produce greater effects than were intended. It is very neceſſary therefore to ſeek for a preventive of the effects of mercury, when likely to be too violent; or to remedy thoſe effects when they have already taken place.

The common practice when mercury produced violent effects upon the inteſtines, was to counteract theſe effects; but this was not done with a view to retain the mercury in the conſtitution, but to relieve the bowels that were ſuffering by the action of the medicine; whereas the proper practice would be to ſtop its progreſs here, as in every other outlet, that more mercury may be retained in the conſtitution.

Although theſe increaſed ſecretions ariſe from the conſtitutions being loaded with mercury, yet there is no danger in ſtopping them, for they do not ariſe from an univerſal diſpoſition becoming a local, or critical one; and therefore if ſuch an action be checked or ſtopped in one place, it muſt neceſſarily fall upon ſome other; but it is from the part being more ſuſceptible

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of this irritation than any other, and the quantity now in the conſtitution being equal to the ſuſceptibility of the part; and therefore, though its effects are ſtopped here, it does not break out any where elſe, every other part being capable of ſupporting this quantity, and of remaining unaffected till more is thrown in.

When the mercury attacked the ſalivary glands, it increaſed that ſecretion ſo much as in ſome caſes to oblige practitioners to adminiſter ſuch medicines as were thought likely to remove this new complaint. This ſuſceptibility of the glands of the mouth, and the mouth in general, to be eaſily put into action by this medicine, was generally ſuppoſed to ariſe from a ſcorbutic conſtitution, to which moſt complaints of the mouth are attributed. I am of opinion that ſcrofulous people, and thoſe of a lax and delicate habit, are more ſubject to have it fall on the mouth than thoſe of a contrary temperament.

Purges were given upon a ſuppoſition that mercury could be carried off by the evacuation produced by them, and they were repeated according to the violence of the effects of the medicine, and the ſtrength of the patient: but I can hardly ſay that I ever have ſeen the effects of mercury upon the mouth leſſened by purging; whether it aroſe ſpontaneouſly, was produced by purging medicines, or even when ariſing from the mercury itſelf. As this method was not found ſufficient for the removal of the complaint, other medicines were tried; ſulphur was ſuppoſed to be a ſpecific for the removal of the effect of mercury. Whether this idea aroſe from practice or reaſoning, is not material;* but I think I have ſeen good effects from it in ſome caſes. If we can ſuppoſe purging of any ſervice, purging with ſulphur would anſwer beſt, as it would exert its effects both as a purge and a ſpecific.

Sulphur certainly enters the circulation as ſulphur, becauſe our ſweat and urine ſwell of it; if it does not combine with the mercury and deſtroy its properties as mercury, it is poſſible, agreeable to the opinion of thoſe who firſt thought of giving it with this intention, that it may ſo combine as to

* Sulphur, united with any of the metals, probably deſtroys their ſolubility in the juices, or at leaſt their effects in the circulation; none of the cinnabars act either as ſulphur, or mercury. Crude antimony, which is regulus and ſulphur, has no effect. Arſenick, when joined with ſulphur, has no effect; nor has iron.

form

from æthiops mineral, or ſomething ſimilar, for we know that the æthiops mineral, however formed, does not in general ſalivate. It is poſſible too, that ſulphur may act as a contrary ſtimulus to mercury, by counteracting the effects of it in the conſtitution. Sulphur has even been ſuppoſed to hinder the mercury from entering the circulation. Upon the whole, as theſe preparations of ſulphur and mercury are ſtill ſuppoſed to have good effects, and as I think I have ſeen good effects in other caſes, we muſt either allow that they enter the circulation, or that their whole effects are on the ſtomach and inteſtines, with which the reſt of the body ſympathiſes. The good effects from ſulphur in leſſening or altering the immediate effects of mercury, can only take place when that medicine is really in the conſtitution; therefore a diſtinction is to be made between ſuch as ariſe immediately from mercury, and one continued from habit, after the mercury has been evacuated from the conſtitution; a caſe that ſometimes happens, and which will be taken notice of in its proper place.

The taſte in the mouth, from the uſe of mercury, has been known to go off, and not be perceived for a fortnight, and the ſame taſte has recurred; this I am informed has happened twice to one gentleman, from the firſt quantity of mercury taken. To account for this is not eaſy; in whatever way it happens, it is a curious fact.

When the mercury has fallen upon the mouth and throat, waſhing thoſe parts with opium has often good effects; for opium takes off irritability, and of courſe the ſoreneſs, which is one means of leſſening the ſecretion. A drachm of tinctura thebaica to an ounce of water, makes a good waſh or gargle.*

When the mercury falls upon the ſkin, it is neither ſo diſagreeable nor ſo dangerous as when it falls upon the mouth; however, it may often happen that it will be proper to check ſuch a diſcharge, both upon account of its being troubleſome, and of its leſſening the effects of the medicine in the conſtitution, by carrying it off. The bark is, perhaps, one of the beſt correctors of this increaſed ſecretion.

* My uſing opium in this way was from analogy; finding that opium quieted the bowels when a purging came on in conſequence of mercury: I tried it by way of gargle to the mouth, and found good effects from it, but not equal to thoſe which it produced in the bowels.

When the medicine attacks the kidneys and increaſes the ſecretion of thoſe glands, it is not ſo troubleſome as when it produces ſweating, though it is poſſible that it may carry off the mercury too ſoon; but as we have but few medicines that can leſſen that ſecretion, in moſt caſes it muſt be allowed to go on. The bark may in ſuch caſes be given with advantage.

When the mercury falls upon the bowels it proves often more dangerous and troubleſome than in any of the former caſes, eſpecially the two laſt; but it is, perhaps, moſt in our power to prevent or palliate. Opium ſhould be given in ſuch quantities as to overcome the complaint, and I believe will ſeldom fail of removing all the ſymptoms.

XI. OF THE FORM OF THE DIFFERENT PREPARATIONS OF MERCURY WHEN IN THE CIRCULATION.

It would appear from reaſon, and many circumſtances, that mercury muſt be in the ſtate of ſolution in the juices of the body before it can act upon the venereal diſeaſe, and indeed before it can act upon any other diſeaſe. That mercury is in a ſtate of ſolution in our juices, and not in the ſtate of any preparation of mercury, that we know of, is very probable from the following facts.

Firſt, crude mercury, every ſalt of mercury, and calx of mercury, is ſoluble in the ſpittle, when taken into the mouth, by which means it is rendered ſenſible to the taſte; from thence it muſt appear that it is capable of ſolution in ſome of our juices.

Secondly, crude mercury, when divided into ſmall parts by gum arabic, &c. ſo as to be eaſier of ſolution when taken into the ſtomach, generally purges; but crude mercury taken without ſuch diviſion has no ſuch powers, not being ſo readily diſſolved in the juices of the ſtomach. The ſimple calx of mercury has the ſame effects, purging, and much more violently, from being, I ſuppoſe, readier of ſolution in the animal juices; for if it only purged from its union with the acid which happened to be in the ſtomach, it moſt probably would not purge more than crude mercury; although it is very

very probable that the calx is eaſier of ſolution in a weak acid, than even the crude mercury.

Thirdly, every preparation of mercury producing the ſame effect in the mouth, and alſo having one and the ſame effect in the conſtitution, ſhows that they muſt all undergo a change by which they are reduced to one particular form. We cannot ſay what that form is, whether it is the calx, the metal, or any other that we are acquainted with; but it is probable that it is not any of them, but a new ſolution in the animal juices peculiar to the animal itſelf. This is rendered ſtill more probable by this circumſtance, that every preparation of mercury put into the mouth, undergoes the ſame change, and the ſpittle has the ſame taſte from every one of them. If every different preparation of mercury had the ſame properties in the conſtitution that it poſſeſſes out of it, which we muſt ſuppoſe if it enters and continues in the ſame form, in that caſe the venereal poiſon muſt be eradicated in as many different ways as there are preparations. Crude mercury would act mechanically, by increaſing the weight and momentum of the blood; the calx would act like brickduſt, or any other powder that is heavy; the red precipitate would ſtimulate by chymical properties in one way, while the corroſive ſublimate would act in another, and the mercurius flavus in a third; this laſt would moſt probably vomit as ipecacuanha does, which vomits whether thrown into the ſtomach or circulation.

Fourthly, all the preparations of mercury, when locally applied, act always in one way, that is, as mercury; but ſome have alſo another mode of action, which is chymical, and which is according to the ſpecific nature of the preparation. The red precipitate is a preparation of this kind, and acts in both theſe ways; it is either a ſtimulant or an eſcharotic.

To aſcertain whether this opinion of mercury being in ſolution in our juices was juſt, I made the following experiments upon myſelf. I put ſome crude mercury into my mouth, as a ſtandard, and let it ſtay there, working it about, ſo as to render it eaſier of ſolution, till I taſted it ſenſibly; I then put into my mouth the mercurius calcinatus, and let it remain till I perceived the taſte of it, which was exactly the ſame; but I obſerved that it was eaſier of ſolution than the crude mercury. I tried calomel in the ſame

way, and alſo corroſive ſublimate, after being diluted with water, and the taſte was ſtill the ſame. It was ſome time before I perceived the taſte of the crude mercury in my mouth. I taſted the calx and calomel much ſooner. The corroſive ſublimate had at firſt a mixed taſte, but when the acid was diluted it had exactly the ſame taſte with the former; all theſe different preparations producing the ſame ſenſation or taſte in the mouth.

From the effects of theſe experiments it would appear, that the mercury in every one of them was diſſolved in the ſpittle, and reduced to the ſame preparation or ſolution.

To try whether mercury in the conſtitution would produce the ſame taſte in the mouth, I rubbed in mercurial ointment upon my thighs till my mouth was affected, and I could plainly taſte the mercury; and, as far as I could rely upon my memory, the taſte was exactly the ſame as in the former experiments.

I allowed ſome time for my mouth to get perfectly well and free from the taſte; I then took calomel in pills till it was affected again in the ſame way. I afterwards took mercurius calcinatus, and alſo corroſive ſublimate. All theſe experiments were attended with the ſame reſult; the mercury in every form producing the ſame taſte, which was alſo exactly the ſame as when the ſeveral preparations were put into the mouth.

From the above experiments it muſt appear, that when mercury produces evacuation by the mouth, it certainly goes off in that diſcharge; and from thence we may reaſonably conclude, that when other evacuations are produced from the medicine when in the conſtitution, as purging, ſweating, or an increaſed flow of urine, that it alſo goes off by theſe evacuations, which become outlets to the mercury.

From the above experiments it appears to be immaterial what preparation of mercury is uſed in the cure of this diſeaſe, provided it is of eaſy ſolution in our juices, the preparations eaſieſt of ſolution being always the beſt.

XII. OF

XII. OF THE OPERATION OF MERCURY ON THE POISON.

MERCURY may be ſuppoſed to act in three different ways in curing the venereal diſeaſe. Firſt, it may unite with the poiſon chymically, and decompoſe it, by which means its powers of irritation may be deſtroyed; ſecondly, it may carry it out of the conſtitution by evacuation; or thirdly, it may produce an irritation in the conſtitution which counteracts the venereal and entirely deſtroys it.

It has been ſuppoſed that mercury acts ſimply by its weight in the circulating fluids; but of this we can form no adequate idea; and if it were ſo, other ſubſtances ſhould act on this diſeaſe in proportion to their weight, and of courſe many of them ſhould cure it; but from experience we find, that ſuch bodies as have conſiderable weight, as moſt of the metals, have no effect on this diſeaſe. We have no proof of mercury acting by a decompoſition of the poiſon from any of the concomitant circumſtances.

Mercury certainly does not cure the venereal diſeaſe by uniting with the poiſon and producing an evacuation. For in thoſe caſes where mercury is given in ſuch a way as to produce conſiderable evacuations, or in thoſe conſtitutions where evacuations are eaſily excited by mercury, its effects upon the diſeaſed action are the leaſt; and the ſame evacuations produced by any other means have not the leaſt effect on the diſeaſe.

Whether the mercury be ſuppoſed to carry off the circulating poiſon, or to decompoſe it, in neither way could it produce, when locally applied, any effect on a venereal inflammation or ſore ariſing from the conſtitution; for as long as any of the poiſon exiſted in the circulation, none of them could be healed by local applications, the circulation conſtantly carrying the poiſon to them; but we find the contrary of this to be true; for a venereal ſore, ariſing from the conſtitution, may be cured locally.

The laſt or third of our modes of action of mercury, ſeems to me the moſt probable, and for many reaſons. Firſt, becauſe the diſeaſe can in many caſes be cured by raiſing a violent ſtimulus of another kind; and perhaps if we could raiſe ſuch a conſtitutional irritation without danger, as we often

often can in local caſes, we might cure the venereal diſeaſe in the ſame manner, and in one quarter of the uſual time. Secondly, we find that mercury acts as an univerſal ſtimulus, cauſing great irritability in the conſtitution, making the heart beat faſter, and rendering the arteries more rigid, ſo as to produce a hard pulſe, as has been already obſerved. It may further be ſaid to produce a diſeaſe, or a peculiar or unnatural mode of action in a certain degree. The following caſe will illuſtrate this. A gentleman had electricity recommended to him for ſome complaint he had. The electricity was applied, but without any viſible effect. Beſides the complaint for which he uſed electricity, he had a venereal one, for which he was firſt put under a courſe of mercury, and while under it the electricity was applied for the former complaint; but he had become ſo irritable that he could not bear the ſhocks of one half their former ſtrength; but the moſt curious part of the caſe was, that the ſhocks had a much greater effect on the diſeaſe than what they had before when twice as ſtrong, and he now got cured. This gave the ſurgeon a hint, and having another occaſion to uſe electricity, alſo without effect, he put the patient under a gentle courſe of mercury, and then found the ſame effects from the electricity as in the former caſe, and the patient alſo got well.

The powers of mercury upon the conſtitution appear to be as the quantity of mercury and the ſuſceptibility of the conſtitution to be affected with it, without any relation to the diſeaſe itſelf; and we find that the power of mercury upon the diſeaſe is nearly in the ſame proportion. This fact gives us an idea of the irritation of mercury upon the conſtitution, and conſequently an idea of adminiſtering it, and of the cure of any diſeaſe for which it is a remedy.

As we find that a given quantity of mercury produces double effects in ſome conſtitutions to what it does in others; alſo, that in thoſe caſes it produces its effects upon the diſeaſe, we are led to believe that it is this effect upon the conſtitution which cures the diſeaſe; and therefore if it did not produce this effect it would alſo not have performed a cure. I have already obſerved, that the cure does not go on exactly in proportion to the viſible effects upon the conſtitution, except quantity in the medicine is joined with it; which, if true, would incline us to believe that there was ſomething

thing more than ſimply a conſtitutional ſtimulus, which moſt probably is a peculiar ſpecific effect which is not regulated entirely by its viſible effects, either conſtitutional or local, although they appear to have ſome connection.

This fact being known, obliges us to be more liberal in giving mercury in thoſe conſtitutions where it makes but little impreſſion, than in thoſe which it eaſily irritates; although in theſe laſt we muſt not be entirely regulated by its local effects, nor depend upon a commonly ſufficient quantity, but be ruled by the ſenſibility of the conſtitution, and quantity joined; for in thoſe where the conſtitution appears to be very ſuſceptible of the mercurial irritation, where ſmall quantities produce conſiderable local effects, it is ſtill neceſſary to have quantity, although it is not ſo neceſſary to take the quantity in general that is ſuppoſed to be ſufficient. We muſt be guided by the three following circumſtances, the diſappearance of the diſeaſe, the quantity of irritation produced, and the quantity of the medicine taken.

XIII. OF GUM GUAIACUM, AND RADIX SARSAPARILLÆ IN THE VENEREAL DISEASE.

I have hitherto only recommended mercury in the cure of the venereal diſeaſe; and indeed it is the only medicine to be depended upon. However, as both the guaiacum and ſarſaparilla have been recommended as powerful remedies in this complaint, I took a favourable opportunity of trying their comparative powers in the venereal diſeaſe upon the ſame perſon.

The guaiacum* I found had conſiderable ſpecific power over the diſeaſe, conſequently it may be of ſervice in ſlight caſes where it may be inconvenient or improper to give mercury on account of ſome other diſeaſe. Theſe caſes, however, I have not yet aſcertained; or it may be given in thoſe caſes where it is apprehended that the quantity of mercury neceſſary to ſubdue the diſeaſe would be too much for the conſtitution to bear; caſes which ſometimes occur. The ſarſaparilla appeared to have no effect at all.

* The lignum guaiaci was imported by the Spaniards from Hiſpaniola, as a cure for the venereal diſeaſe, in the year 1517, having been given to one of them by a native.

I ſhall

I ſhall relate exactly the caſe in which their comparative powers were tried. A man came into St. George's Hoſpital with venereal ſores over almoſt his whole body: there were many excreſcent ſores in the armpits, ſome of which were about the ſize of an halfpenny; there were the ſame appearances about the anus, between the buttocks, along the perinæum, between the ſcrotum and thigh, where thoſe parts come in contact with one another. Thoſe upon the ſkin in general had the common appearance. I ordered a poultice of the gum guaiacum to be applied to the ſores in the right armpit; alſo a poultice of a ſtrong decoction of ſarſaparilla and oatmeal mixed, to be applied to the left armpit. Theſe poultices were changed every day for a fortnight; the excreſcent ſores in the right armpit were entirely healed, and become even with the ſkin, and covered with a natural ſkin, although ſomewhat diſcoloured; the ſores in the left armpit, which were poulticed with ſarſaparilla, were rather worſe than when the poultice was firſt applied, as indeed were all the ſores, except thoſe in the right armpit. I then ordered the poultice of guaiacum to be applied to the left armpit, which was done, and the ſores there alſo got well in a fortnight; I was now perfectly convinced that the gum guaiacum had cured theſe eruptions locally.

I next wiſhed to ſee what effect the gum guaiacum would have upon the remaining ſores when given internally, that is, thoſe about the anus, ſcrotum, and on the ſkin in general. The patient began with half a drachm three times every day, which purged him; but this was prevented by joining it with opium. In about four weeks all the eruptions were cured, and he was allowed to ſtay in the hoſpital ſome time longer, to ſee if he would continue well; but about a fortnight after he began to break out anew, and in a very ſhort time was almoſt as bad as ever. I began a ſecond time the gum guaiacum internally, but it had loſt all its powers, or rather the conſtitution was no longer affected by it. He was put under a courſe of mercury, and cured.

CHAPTER

CHAPTER IV.

OF THE EFFECTS REMAINING AFTER THE DISEASE IS CURED, AND OF THE DISEASES SOMETIMES PRODUCED BY THE CURE.

IN treating of the local effects of the venereal diſeaſe, the gonorrhœa and chancre, as alſo the bubo, I obſerved that after the virus was deſtroyed, there remained in many caſes ſome of the ſame ſymptoms, and particularly after the gonorrhœa. It was alſo obſerved, that though all the ſymptoms were entirely cured, yet they were liable to break out again. A gleet will appear, ſometimes attended with pain, ſo as to reſemble a gonorrhœa; after chancres there will be ſores reſembling them; and buboes after the virus is gone, will not heal, but ſpread. In the lues venerea, the ſame thing often happens, eſpecially if the inflammation and ſuppuration have been violent in the parts. Theſe caſes puzzle conſiderably; for it is difficult to ſay when the venereal virus is abſolutely gone. In ſuch doubtful caſes the treatment to be followed becomes more undetermined.

Such complaints are more common in the tonſils than in any other part; for we often find that while a mercurial courſe is going on, and the ulcer on the tonſils healing, or even healed, they ſhall ſwell, become excoriated, and the excoriations ſhall ſometimes ſpread over the whole palatum molle, which renders the nature of the diſeaſe doubtful. I believe theſe excoriations, as well as ſuch other appearances of diſeaſe as come on during the uſe of mercury, are ſeldom or never venereal. In all ſuch caſes I would recommend not to continue the mercury longer than what appears ſufficient for overcoming the original venereal complaints, not conſidering thoſe changes in the caſe as venereal. The bark is often of ſervice here, and may be given either with the mercury, or after the mercurial courſe is over.

It often happens that venereal abſceſſes will not heal up, although they have gone a certain length towards it; for while the venereal action remained in the part, the mercury diſpoſed that part to heal; but under that courſe the conſtitution and part had acquired another diſpoſition, proceeding from a venereal and mercurial irritation affecting a particular habit of body, or part, at the time, which new diſpoſition differs from the venereal, mercurial, and natural, being a fourth diſpoſition ariſing out of all the three. I ſuſpect however that it depends chiefly on the conſtitution; becauſe if it was owing to the other two, we ſhould always have the ſame diſeaſe; and what makes this opinion more probable is, that it differs in different people, at leaſt it is not cured in all by the ſame means. The conſtitution being prediſpoſed, the other two become the immediate cauſes of action. As ſoon as the venereal irritation is deſtroyed by the mercury, or becomes weaker than the other two, then the effects of the others take place. While the venereal action prevails, the mercury is of ſervice, and the ſore continues healing; but when it is leſſened to a certain degree, or deſtroyed, the mercury not only loſes its powers, but becomes a poiſon to the new diſpoſition that is formed; for if mercury is continued, the ſore ſpreads, it ſhould therefore be immediately left off.

Some of the ſores, formed in this way, not only reſiſt all means of cure, but often inflame, ulcerate, and form hard callous baſes, ſo as to put on the appearance of a cancer, and are often ſuppoſed really to be ſo.

We find alſo that new diſeaſes ariſe from the mercury alone. The tonſils ſhall ſwell where no venereal diſeaſe has been before, the perioſteum ſhall thicken, and alſo probably the bones, and the parts over them ſhall become œdematous and ſore to the touch; but as theſe complaints ariſe while under a mercurial courſe, they are not to be reckoned venereal, but a new diſeaſe, although they are too often ſuppoſed to be venereal, and on that account the mercury is puſhed as far as poſſible. In ſuch caſes if the complaints for which the mercury was given are nearly cured, and the medicine has been continued a ſufficient time after to complete the cure of thoſe complaints, then of courſe it ſhould be left off; and if there be any doubt, it ſhould be left off rather ſooner than if no ſuch complaint had taken place, becauſe

becauſe it is probably producing a worſe diſeaſe than the venereal; and if after the cure of theſe complaints from the mercury, the venereal diſeaſe begins again to come into action, mercury muſt be given a ſecond time, and now the conſtitution will be better able to bear it, eſpecially if attention has been paid to the reſtoring the ſtrength of it. Thoſe diſeaſes of the tonſils and perioſteum, I ſuſpect to be of ſcrofulous origin.

Beſides, local complaints, ariſing from the combined action of the mercury, the diſeaſe, and the conſtitution, there is ſometimes a conſtitutional effect, which is a weakneſs, or debility, a languor, want of appetite, frequent ſweats threatning hectic; but theſe happen moſtly in thoſe conſtitutions with which mercury diſagrees. Theſe complaints, local as well as conſtitutional, ariſe in ſome meaſure from weakneſs. They are difficult of cure, whether ariſing from a venereal chancre, bubo, or the lues venerea. Strengthening medicines are of moſt ſervice: the bark is of great uſe, though in general not ſufficient, as it can only more or leſs remove the weakneſs, the ſpecific qualities ſtill remaining. What theſe are, is, I believe, not yet known; but I ſuſpect that many partake of the ſcrofula; and this opinion is ſtrengthened by their frequently giving way to ſea-bathing.*

I. GENERAL OBSERVATIONS ON THE MEDICINES USUALLY GIVEN FOR THE CURE.

A decoction of the woods, among which are commonly included guaiacum and ſarſaparilla, is one of the firſt medicines in the cure, and many of the caſes yield to it, which gives them the credit of curing the venereal diſeaſe, while ſuch diſeaſes were ſuppoſed to be venereal. The ſarſaparilla was often given alone, and was found to produce nearly the ſame effect. The

* In a caſe of an ulcerated rib from a venereal cauſe, and five nodes on the ſhin-bone, of twelve months ſtanding, a deep ſalivation of ſix months was undergone, after fruitleſs attempts by gentle friction. None of the ſores were healed by the mercury, and the patient was ordered to bathe in the ſea, and take the bark. In three or four months the ſores all healed up very kindly; but the ſide laſt of all.

good effects of it in one case gave it some reputation.* A diet-drink discovered at Lisbon was also of considerable service; and as it cured cases similar to those cured by the sarsaparilla, it was imagined that the diet-drink consisted principally of a decoction of this root. This was still on the supposition that all those cases were venereal; but it was observed at last that those medicines did not cure this disease till mercury had been given, and in tolerably large quantity. This was sufficient to lead some thinking minds to doubt whether they were venereal, or not; and their being cured by different medicines ought to produce a conviction of their being different from the venereal disease, and that they are themselves of different kinds.

The mezereon has also been found to be of service in some symptoms of the lues venerea, such as nodes of the bones; but their being venereal was taken for granted. The mezereon is seldom given in venereal ulcers in the throat, or blotches on the skin, which of all the venereal symptoms are the most certain, and the most easy of cure; yet it was conceived that it removed such symptoms as are the most difficult of cure; but all those cases in which the mezereon has been given with success, plainly appear not to have been venereal.

When the hemlock came into fashion in this country, it was given in almost every disease, and of course was tried in some of those complaints consequent to the venereal disease; and some of these it was found to cure, so that it now stands upon the list of remedies. Velno's vegetable sirup has had similar effects in some of these cases; and opium appears also to have many advocates. Opium, like the sarsaparilla, and mezereon, was supposed by its first introducers to cure the lues venerea;† but, like the sarsaparilla, it appears to have no effect till mercury has done its best, or its worst.‡ It has certainly considerable effects in many diseases, both in such as are consequent to the venereal disease, and others arising from other causes.

It has been long a favourite medicine of mine, not only as relieving pain, for that is its common effect, but as a medicine capable of altering diseased

* See London Medical Essays, a case published by Mr. Fordyce, now Sir William Fordyce.

† See Medical Communications, vol. 1, page 307.

‡ See a pamphlet published by Mr. Grant.

actions,

actions, and producing healthy ones. In all ſores attended with irritability, a decoction of poppy heads, made into a poultice, is an excellent application. Bleeding ſores that do not ariſe from weakneſs, but from irritability, have the bleeding ſtopped immediately by this application. Mr. Pott is, I believe, the firſt who ſhowed the world its uſe in mortifications. My firſt mode of applying it for the cure of diſeaſes was locally, in which I found it had moſt ſalutary effects in ſome caſes, and it was ordered afterwards internally upon the ſame principle, and it was alſo found to have ſalutary effects in this mode. In two caſes that had been long ſuſpected to be venereal, its effects were very remarkable; and, by its having cured them, it confirmed me in my opinion that they were not. But when I was informed that they cured the venereal diſeaſe in the army in America by opium, I then began to queſtion myſelf, whether I had formed a right judgment of the nature of thoſe two caſes which were cured by opium. To aſcertain whether opium would cure the lues venerea or not, I made the following trial at St. George's Hoſpital.

A woman was taken into the hoſpital with blotches on her ſkin, which had arrived to the ſtate of ſcabs, and with well-marked venereal ulcers on both tonſils. A grain of opium was ordered to be taken the firſt night, two the ſecond, and ſo on, increaſing a grain every night, unleſs ſomething ſhould ariſe to forbid it. This was cloſely followed till the nineteenth night, when ſhe was ordered a doſe of phyſic, as ſhe had become coſtive, and the opium was omitted. On the 20th ſhe began again, and continued increaſing the doſe, as before, till it amounted to thirty grains, no alteration being produced in the ſores, except what aroſe from the loſs of time, whereby they were rather worſe. I concluded, that if ſhe had taken mercury to affect the conſtitution as much as the opium did, the venereal diſeaſe muſt have been nearly cured, or at leaſt much leſſened; but as that was not the caſe, it convinced me that the opium had no effect whatever on the venereal diſeaſe. I then put her under a courſe of mercury, by friction, and in a ſhort time it affected her mouth; the ſores ſoon began to look better, and they went on healing without interruption, till the diſeaſe was cured. I may juſt obſerve, the inconvenience from the opium was not conſiderable; for although it kept her quiet, ſhe was not conſtantly doſing.

Luke

Luke Ward was admitted into St. Bartholomew's Hoſpital, January 12, 1785; his complaint was an ulcer in the throat of three months ſtanding, which, both from its appearance, and the ſymptoms which preceded it, ſeemed to be venereal. He was ordered two grains of opium twice a day, which he took a few days, without any other effect than that of ſleeping better at night than uſual, when the doſe was increaſed to two grains three times a day. His throat now gave him leſs pain; but upon inſpection was not found to be at all mended. After two days the doſe was increaſed to three grains thrice a day; from this quantity he felt little or no inconvenience: he complained of being a little drouzy; his eyes were rather inflamed, and his face rather fluſhed. He continued to take this quantity for five days, and then it was increaſed to three grains four times a day. Next morning the redneſs and heat of his face was much increaſed, and had extended over his whole ſkin; he complained of pain in his head. His pulſe was full and ſtrong; he was bound in his body, and his belly was tenſe and painful. The opium was omitted, and ſuch remedies as the preſent ſymptoms ſeem to require were given, but without effect; all his ſymptoms continuing to increaſe till he died, which was on the fourth day after; during this time the ulcer increaſed much, and the diſcharge of ſaliva was ſo great as to reſemble a ſlight ſalivation.

This caſe proves, in the firſt place, that the opium had no effect upon the ulcer in the throat; and, in the next, that it is a medicine capable of producing very violent effects on the ſkin, requiring therefore great caution in the mode of adminiſtering it.

John Morgan was admitted into St. Bartholomew's hoſpital with an ulcerated leg. The common applications were tried for ſeven weeks, at the end of which time he was in every reſpect worſe, having no ſleep from conſtant pain, and he was ſinking very faſt. Two grains of opium were given every two hours, for twenty-three days; it made him hot and coſtive, and his pulſe became ſtrong and full, but without ſleep or abatement of pain. The doſe was increaſed to four grains every two hours in the day, and eight grains every two hours during the night. The effects were coſtiveneſs, retention of urine, loſs of appetite, an inflammatory diſpoſition, no

ſleep,

ſleep, without any amendment of the ulcer. On the third day of taking the laſt-mentioned quantities, he awoke from a ſhort ſleep, delirious, and continued ſo for twelve hours, when it left him very weak, ſick at his ſtomach, and with a low pulſe. In three or four hours the delirium returned and continued forty-eight hours; the pulſe, on its return, immediately roſe, and his ſtrength returned to a very great degree. When it went off he fell into a ſound ſleep for about eight hours, and awoke very tranquil, though weak; no more opium was given, and the leg in the ſpace of a month healed.

In the firſt twenty-three days he took twenty-four grains a day; for the laſt three days he took ſeventy-two grains a day. In twenty-ſix days he took ſeven hundred and ſixty-eight, which is nearly two ounces of opium.

Sarſaparilla, from the comparative experiment made with it and the guaiacum, it would appear to have no effect upon the venereal irritation itſelf, and therefore can be of no ſervice till that irritation is deſtroyed; and as mercury is the antidote to that poiſon, and becomes one of the cauſes of the complaints in which ſarſaparilla is uſeful, therefore mercury is not only neceſſary to deſtroy the poiſon, but alſo aſſiſts in forming the diſeaſes we are now treating of.

It is eaſy to conceive it in many caſes to be of uſe in preventing the formation of the diſeaſe ariſing from mercury. When given along with the mercury it is often joined with the gum guaiacum, or the wood of the guaiacum, which we know will have ſome effect.

The ſarſaparilla is generally given in form of a decoction, three ounces to three pints of water, boiled down ſlowly to a quart, and the half or whole is drunk every day, generally at three different times, often at meals. It is ſometimes ground to a powder and taken every day with the ſame effect; but I ſhould prefer the extract made into pills, as the eaſieſt way of taking this medicine.

In many of theſe caſes I have ſeen good effects from the hemlock, of which the following is an inſtance; and I would further refer the reader back to my obſervations on this medicine, which I gave when treating of the diſeaſe produced in conſequence of a bubo, page 284.

A poor

A poor woman had undergone repeated ſalivations, which had always relieved the moſt preſſing ſymptoms; but after that ſhe was afflicted more or leſs for three or four years, ulcers broke out in her noſe, and all over her face, with what is called a true cancerous appearance. The ſores became ſoon very deep, and gave very conſiderable pain. Mercury, ſarſaparilla, and bark were given, without effect; the ſores getting daily worſe, the parts affected were ordered to be held over the ſteam of a decoction of hemlock every four hours, and as much extract to be taken internally as the patient could bear. She had ſleep, and was free from pain the firſt night; and in a few days the ſores put on a healing appearance. She loſt her noſe and one ſide of her mouth; but in ſix weeks time every part was ſkinned over. She remained well for three months, when the diſeaſe returned with redoubled violence, and ſoon deſtroyed her.

II. OF THE CONTINUANCE OF THE SPITTING.

It ſometimes happens that the ſpitting continues after there is every reaſon for ſuppoſing the mercury to be entirely out of the conſtitution. As it is only a continuation of an action, or an effect of mercury having been in the conſtitution, it is neceſſary to diſtinguiſh it from the original, or from the immediate effect of mercury; ſince on this diſtinction reſts the method of cure. Such conſtitutions have been generally ſuppoſed ſcorbutic; and where there is a great ſuſceptibility of the mercurial ſtimulus in theſe parts, the ſalivation will continue for months after the mercury has been completely removed; but this medicine not being given now in quantity ſufficient to produce ſuch violent effects on the ſalivary glands, theſe caſes ſeldom occur.

In ſuch caſes I would recommend ſtrengthening diet, and ſtrengthening medicines. Sea-bathing is one of the beſt reſtoratives of relaxed habits, eſpecially after mercury. Mead's tinture of cantharides is ſuppoſed to be of ſervice in thoſe caſes.

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The alveolar proceſſes have ſometimes become dead, and exfoliations have taken place; and this alone has kept up a diſcharge of ſaliva. When this happens, we muſt wait till ſeparation takes place, and extract the looſe pieces, after which the ſalivation will ſubſide.

I have ſeen part of the jaw exfoliate from this cauſe. In moſt caſes the teeth become looſe; and in many they drop out.

CHAPTER V.

OF PREVENTING THE VENEREAL DISEASE.

AS diſeaſes in general ſhould not only be cured, but, when it is poſſible, prevented, it will not be improper to ſhow, as far as we know, how that may be done; for in this diſeaſe we can with more certainty prevent infection, its origin being known.

Preventives are previous or immediate applications, as may be divided into various kinds; as thoſe that will not allow the venereal matter to come in contact with the parts; thoſe which waſh it off before it ſtimulates; and thoſe which will act chymically and deſtroy the poiſon.

Oils rubbed on a dry part, ſtick to it and prevent any thing that is watery from coming in contact with it; and as the venereal poiſon is mixed with a watery fluid, it is not allowed to touch the part.

Every thing which has a power of mixing with the venereal matter, and removing it from the part to which it is applied, may prove a prevention. Cauſtic alkali is the beſt for this purpoſe; it unites with the matter, forming a ſoap, and is then eaſily waſhed off.

It is poſſible this union with the alkali may deſtroy the poiſon: the alkali muſt be much diluted, or it will excoriate.

Lime-water would make a good waſh.

If both theſe methods were put in practice, there would be ſtill more ſecurity.

Corroſive ſublimate in water, about a grain or two to eight ounces, has been known to prevent the catching of the diſeaſe.

PART VII.

CHAPTER I.

OF DISEASES RESEMBLING THE LUES VENEREA, WHICH HAVE BEEN MISTAKEN FOR IT.

THERE is probably no one diſeaſe to which ſome other may not bear a ſtrong reſemblance in ſome of its appearances or ſymptoms, whereby they may be miſtaken for each other. The ſituation of a complaint alſo may miſlead the judgment. A lump, for inſtance, in the breaſt of a woman, may reſemble a cancer ſo much as to be miſtaken for one, if all the diſtinguiſhing marks of cancer are not well attended to. An ulcer on the glans penis, or in the throat, and noſe, creates a ſuſpicion of the venereal diſeaſe. Even the way in which a diſeaſe is caught becomes a cauſe of ſuſpicion. The fluor albus in women ſometimes produces a ſimple gonorrhœa in men. Drinking out of the ſame cup, with a venereal patient, was formerly ſuppoſed to be capable of communicating the lues venerea; but this notion is, I believe, now exploded. Of late years a new mode of producing the venereal diſeaſe is ſuppoſed to have ariſen; this is by the tranſplanting of a tooth, from the mouth of one perſon into the mouth of another. That ſuch practice has produced diſeaſes, is undoubted; but how far it has been venereal, remains to be conſidered.

Diſeaſes which reſemble others, ſeldom do it in more than one or two of the ſymptoms; therefore, whenever the nature of the diſeaſe is ſuſpected, the whole of the ſymptoms ſhould be well inveſtigated, to ſee whether it agrees in all of them with the diſeaſe it is ſuſpected to be, or only in part. This obſervation ſeems to be more applicable to the venereal diſeaſe than

any other; for there is hardly any diſorder that has more diſeaſes reſembling it in all its different forms than the venereal diſeaſe; and when a diſeaſe reſembles the venereal in ſome of its ſymptoms, but not at all in others, then thoſe other ſymptoms are to be ſet down as the ſpecific or leading ones of the diſeaſe to which it belongs; the reſembling ſymptoms to the venereal being only the common ones. But if a diſeaſe is ſuſpected to be venereal, though it is not perfectly marked, yet if it reſembles the venereal in moſt of its ſymptoms, it muſt be ſuppoſed to be venereal, that being the moſt probable, although it is by no means certain; for probably the venereal can hardly be demonſtrated in any caſe, eſpecially in the form of the lues venerea, from its not having the power of contamination.

Although the venereal diſeaſe keeps its ſpecific properties diſtinct in its ſeveral forms, yet its ſymptoms are in appearance common to many other diſeaſes, and in that light it cannot be ſaid to have any one ſymptom peculiar to itſelf. For inſtance, every ſymptom of the venereal diſeaſe, in form of a gonorrhœa, may be produced by any other viſible irritating cauſe; and often without any cauſe that can be aſſigned; even buboes and ſwelled teſticles, which are ſymptoms of this diſeaſe, have followed both ſtimulating injections and bougies, when applied to the urethra of a ſound perſon; and indeed theſe two ſymptoms, when they do ariſe from a venereal cauſe, in many caſes, are only ſymptomatic, not ſpecific, but more eſpecially the ſwelled teſticle.

Sores on the glans penis, prepuce, &c. in form of chancres, may, and do ariſe without any venereal infection; although we may obſerve that they are in general a conſequence of former venereal ſores which have been perfectly cured.

The ſymptoms produced from the infection, when in the conſtitution, are ſuch as are common to many other diſeaſes; viz. blotches on the ſkin are common to what is called ſcorbutic habits; pains common to rheumatiſm, ſwellings of the bones, perioſteum, faſciæ, &c. to many bad habits, perhaps of the ſcrofulous and rheumatic kind. Thus moſt of the ſymptoms of the venereal diſeaſe, in all its forms, are to be found in many other diſeaſes; therefore we are led back to the original cauſe, to a number of leading circumſtances, as dates, and its effects upon others from connection

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when only local, joined with the preſent appearances and ſymptoms before we can determine abſolutely what the diſeaſe truly is; for all theſe taken together, may be ſuch as can attend no other diſeaſe. However, with all our knowledge, and with all the application of that knowledge to ſuſpicious ſymptoms of this diſeaſe, we are often miſtaken, often calling it venereal when it is not; and ſometimes ſuppoſing it to be ſome other diſeaſe when it is venereal.

Rheumatiſm, in many of its ſymptoms, in ſome conſtitutions, reſembles the lues venerea; the nocturnal pains, ſwelling of the tendons, ligaments, and perioſteum, and pain in thoſe ſwellings, are ſymptoms both of the rheumatiſm and the venereal diſeaſe, when it attacks thoſe parts: I do not know that I ever ſaw the lues venerea attack the joints, though many rheumatic complaints of thoſe parts are cured by mercury, and therefore ſuppoſed to be venereal.

Mercury, given without caution, often produces the ſame ſymptoms as rheumatiſm; and I have ſeen even ſuch ſuppoſed to be venereal, and the medicine continued.

Other diſeaſes ſhall not only reſemble the venereal in appearance but in the mode of contamination, proving themſelves to be poiſons by affecting the part of contact, and from thence producing immediate conſequences ſimilar to buboes; alſo remote conſequences ſimilar to the lues venerea.

As errors in forming a judgment of a diſeaſe lead to errors in the cure, it becomes almoſt of as much conſequence to avoid a miſtake in the one as in the other; for it is nearly as dangerous in many conſtitutions to give mercury where the diſeaſe is not venereal, as to omit it in thoſe which are; for we may obſerve, that many of the conſtitutions which put on ſome of the venereal ſymptoms, when the diſeaſe is not preſent, are thoſe with which mercury ſeldom agrees, and commonly does harm. I have ſeen mercury given in a ſuppoſed venereal ulcer of the tonſils, produce a mortification of thoſe glands, and the patient has been nearly deſtroyed.

When treating of the lues venerea, and giving the ſymptoms and general appearances of the diſeaſe, I related ſome caſes which appeared to be venereal, though they really were not; and I ſhall now refer the reader to theſe, as it will be unneceſſary to give them again here, although if they had not been formerly taken notice of, this would have been a very proper place.

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As the diſeaſes in queſtion are various, and not to be reduced to any ſyſtem or order that I am acquainted with, I ſhall content myſelf with relating the caſes, and thereby put it in the power of others to judge for themſelves, if they ſhould not be inclined to adopt the concluſions I have drawn from them.

On the 28th of July 1776, a gentleman, then in the Weſt Indies, ſcratched the end of his finger with a thorn. On the 31ſt he opened an abſceſs on the ſhoulder of a negro woman who had the yaws, and had been long ſubject to ſuch abſceſſes in different parts of the body, and to incurable ulcerations afterwards. At the inſtant after the operation, he perceived a little of the matter upon the ſcratch, and exclaimed that he was inoculated. On the 2nd of Auguſt, he amputated a boy's finger, of thirteen years of age, for a ſore reſembling wormeaten wood. The ſcratch on his finger did not heal, but from time to time threw off whitiſh ſcales: this appearance alarmed him, and he rubbed in mercurial ointment very freely. Notwithſtanding this, in the month of September, a painful inflamed tumor appeared on the ſecond joint of the finger, which was ſoon followed by ſeveral others on the back of the hand, in the courſe of the metacarpal bone of the forefinger. He ſtill continued the mercurial friction, but without effect, for the tumors daily multiplied; and by the month of November extended to within a ſmall diſtance of the axilla. They did not go on to ſuppuration at this time. About the end of November he began to be affected with ſevere nocturnal pains in different parts of the body, but eſpecially along the tibia and fibula, with frequent ſevere headachs, which continued to increaſe to an almoſt intolerable degree for five months, though he uſed mercurial friction, with decoction of ſarſaparilla, every day in great quantity.

In the month of May 1777, a ſcabby eruption appeared in different parts of the body, eſpecially the legs and thighs, and the before-mentioned tumors ulcerated; but this was followed by a remiſſion of the nocturnal pains.

He never could bring on a ſalivation, though his mouth was conſtantly tender, even for months. The ulcerations became daily worſe, and a voyage to England was thought the only reſource. He arrived in London the 1ſt of Auguſt, and by the advice of Dr. William Hunter and Sir John Pringle, he began again a courſe of mercury and ſarſaparilla, with a milk diet.

diet. I was called in, and judging that two-thirds of a grain of mercurius calcinatus, every day, was too ſmall a doſe, if it were judged to be venereal, it was ordered to be gradually increaſed to five grains; and he continued this courſe till November, when all the ſores were perfectly healed.

He now diſcontinued the mercury, and remained free from all ſymptoms of the diſorder, except ſome nodes on the tibia, and rheumatic pains on expoſure to cold, until about twelve months ago, when he began to have an uneaſineſs in ſwallowing, a rawneſs in the throat, and a diſcharge of viſcid mucus from that and the poſterior noſtrils, all of which ſtill continue.

The following obſervations may be made on the above caſe:

There can be little doubt that the diſeaſe was the yaws. The yaws are a diſeaſe that reſembles the venereal in ſeveral of its ſymptoms, as well as in the manner in which it is moſt commonly communicated. It differs, however, in ſome eſſential particulars. The yaws have a regular progreſs, after going through which they leave the conſtitution in an healthy ſtate, at leaſt free from that diſeaſe; it being ſufficient for the cure that the patient be put in a ſtate favourable to general health. Thus, a negro labouring under the diſeaſe muſt do little or no work, be kept clean, and have a better diet than uſual. Under theſe circumſtances, he commonly gets well in from four to nine months; although the unfavourable caſes will continue much longer. Various medicines are given for the cure, but it is not clear that any of them do good. Mercury has conſiderable power over the diſeaſe, without being a ſpecific for it. If given early it will either check the progreſs of the diſeaſe, or perhaps even heal up all the ſores on the ſkin; but nothing is gained by this, for the diſeaſe ſoon breaks out anew. Some practitioners of medicine in the Weſt Indies, are of opinion that interrupting the courſe of the diſeaſe by mercury is productive of no other evils than thoſe of loſs of time, and an imperfect cure; others affirm, that it is often the cauſe of what they call the boneach. Towards the end of the diſeaſe it is generally allowed that mercury may be given ſafely, and even with advantage. It is probable the long continuance of the diſeaſe being above fourteen months, and alſo the pains in the bones in the preſent caſe, were owing to the very early and free uſe of mercury. It may be allowable to add, that the yaws do not differ more from the venereal diſeaſe in curing themſelves

themſelves, than in this circumſtance, that, like the ſmallpox, they affect none a ſecond time.

A gentleman applied to me for the cure of chancres, ſeated on the attachment of the prepuce to the penis, and alſo on the frænum. Mercury was uſed chiefly by friction, in order to affect the conſtitution; it was alſo applied to the ſores, in order to affect them locally. The cure of the chancres went on gradually and without interruption; and in about five weeks they were perfectly healed. He almoſt immediately had connection with a woman, and long before we could ſuppoſe the mercury had all got out of his conſtitution. In a very few days after the firſt connection, the prepuce began to be chopped all round on the edge of its reflection. He continued his connection, and upon its growing worſe he applied to me, and I found the chops very deep, and the prepuce there ſo tight and ſore that he could not bring it back upon the penis. The queſtion now was, whether this was venereal or not? The ſores themſelves did not appear to be ſo; but more was to be taken into the account than ſimply appearances. It was firſt to be conſidered, whether it might poſſibly be a return of his former complaint. This could not be the caſe, becauſe the ſores were not in the ſame parts. It was next to be queſtioned, was it poſſible for this part of the prepuce to have been contaminated at the ſame time with the former, and the poiſon not to have come into action till now, having been prevented by the courſe of mercury, which had not cured the diſpoſition? This could not be well anſwered, although not probable, becauſe the poiſon appeared to come too ſoon into action after the leaving off of the medicine; for I did ſuppoſe there was ſtill a great deal of mercury in the conſtitution. Was it then poſſible for him to have caught it from the woman? This, I ſuppoſed, could not have been the cauſe of theſe chops, whatever effect this connection might have to render them venereal hereafter; for they appeared too ſoon after it, eſpecially as he had mercury in his conſtitution at the time, and as the parts had been accuſtomed to the application of venereal matter but a very little time before. Although, from all circumſtances taken together, I was convinced the caſe was not venereal, yet an apprehenſion aroſe in his mind concerning the poſſibility of having given it to the lady, as he had connection after the firſt appearance of the ſores. I was equally convinced

vinced of the impoſſibility of the one as of the other, therefore deſired him to reſt eaſy on that head. He went immediately into the country, and nothing being done for thoſe chops, they got perfectly well. In leſs than a fortnight after this connection, the lady became a little indiſpoſed with a ſlight fever; and a ſwelling came in one of her groins. I watched the progreſs of this ſwelling, which was ſlow, and I did not believe it to be venereal. It at laſt formed matter and broke, and a poultice was applied to it. Inſtead of ulcerating or ſpreading, it rather had a healing diſpoſition, and in about ſix weeks it was perfectly well. While it was healing, ſcurfy eruptions came out on the ſkin, ſome on the face and thighs, but more eſpecially on the hands and feet, where the cuticle peeled off. Upon the firſt appearance of theſe, I was a little ſtaggered; but as the ſore was healing, I was unwilling to give credit to the appearance, and therefore begged that nothing might be done; and they all got well.

From the general outline of theſe caſes, one would naturally have ſaid, they were venereal; but the particular circumſtances being all inveſtigated, and the whole taken together, led me to ſuppoſe that they were not, and the event proved that to be the caſe.

The following caſe was communicated by Mr. French of Harpur-ſtreet.

"June the 9th, 1782, a gentleman applied to me for an ulcer which was ſeated on the glans penis, attended with exceſſive pain. Knowing him to be an intemperate man, and learning from himſelf, that during a ſtate of intoxication he had been connected with a woman, I judged the complaint to be venereal. He was now in a feveriſh ſtate and unfit for the exhibition of mercury: I therefore preſcribed for him decoction of bark, with elixir of vitriol and tinctura thebäica, proportioned to his pain. I directed him to abſtain from every kind of fermented liquor; to live chiefly upon milk, and to waſh the ulcer with a liniment compoſed of equal parts of oil of almonds and aqua ſapphirina.

About the 17th of the ſame month, ſome check having been given to the fever, the ſore looking cleaner, and his pain having abated, I ordered him ſmall doſes of argentum vivum and extract of hemlock.

July the 4th, finding the mercurial courſe to diſagree, I ordered three grains of the extract of hemlock to be taken two or three times a day, and

the decoction of bark to be taken as before, with twenty drops of tinctura thebäica, which was gradually increaſed to ſixty, at bed-time.

The ulcer had ſpread very much during the mercurial courſe, and had now deſtroyed half the glans penis.

October 1ſt, Mr. Hunter was conſulted, and ordered the patient to add the powder of ſarſaparilla to the decoction of bark, to take laudanum freely, and waſh the ſores with tinctura thebäica. Soon after beginning this courſe the remainder of the glans penis ſloughed off; the parts gradually healed; and health was reſtored.

There were two other ſymptoms in this caſe which deſerve to be taken notice of; a conſiderable enlargement of the ſcalp on the right ſide of the os frontis, and on the left parietal bone, attended with exceſſive pain, and vibices reſembling the ſea-ſcurvy on the inſide of the left tibia, both of which diſappeared in the courſe of the cure.

Some months after, the tumor in the head returned, and ſeveral abſceſſes were formed which were opened, and the cranium found carious to a great extent. On account of the pain, he has for ſome months paſt taken two hundred and forty drops of laudanum, and ſix grains of opium daily. Theſe ſores healed up, and others broke out in different parts of the head, which alſo got well; and in June 1785 there was only one large ulcer in the angle of the right eye."

A lady was delivered of a child on the 30th of September 1776. The infant being weakly, and the quantity of milk in the mother's breaſts abundant, it was judged proper to procure the child of a perſon in the neighbourhood to aſſiſt in keeping the breaſts in a proper ſtate. It is worthy of remark, that the lady kept her own child to the right breaſt, the ſtranger to the left. In about ſix weeks the nipple of the left breaſt began to inflame, and the glands of the axilla to ſwell. A few days after, ſeveral ſmall ulcers were formed about the nipple, which, ſpreading rapidly, ſoon communicated and became one ulcer, and at laſt the whole nipple was deſtroyed. The tumor in the axilla ſubſided, and the ulcer in the breaſt healed in about three months from its firſt appearance. On inquiry, about this time the child of the ſtranger was found to be ſhort breathed; had the thruſh; and died tabid, with many ſores on different parts of the body.

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The patient now complained of ſhooting pains in different parts of the body, which were ſucceeded by an eruption on the arms, legs and thighs, many of which became ulcers.

She was now put under a mercurial courſe, with a decoction of ſarpaparilla. Mercury was tried in a variety of forms, in ſolution, in pills internally, and externally in the form of ointment. It could not be continued above a few days at a time, as it always brought on fever or purging, with extreme pain in the bowels. In this ſtate ſhe remained till March 16, 1779, when ſhe was delivered of another child in a diſeaſed ſtate. This child was committed to the care of a wetnurſe, and lived about nine weeks. The cuticle peeling off in various parts, and a ſcabby eruption covering the whole body. The child died.

Soon after the death of the child, the nurſe complained of headach and ſore throat, together with ulceration of the breaſts. Various remedies were given to her, but ſhe determined to go into a public hoſpital, where ſhe was ſalivated, and after ſome months ſhe was diſcharged, but not cured of the diſeaſe. The bones of the noſe and palate exfoliated, and in a few months ſhe alſo died tabid.

Of the various remedies tried by the lady herſelf, none ſucceeded ſo well as ſea-bathing. About the month of May ſhe began a courſe of the Liſbon diet-drink, and continued it with regularity about a month, dreſſing the ſores with laudanum, by which treatment the ſores healed up; and in September ſhe was delivered of another child, free from external marks of diſeaſe, but very ſickly; and it died in the courſe of the month.

About a twelvemonth after, the ſores broke out again, and although mercurial dreſſings and internal medicines were given, remained for a twelvemonth, when they began again to heal up.

The following caſes being all derived from one ſtock, ſhow as much as poſſible, that new poiſons are riſing up every day, and thoſe very ſimilar to the venereal in many reſpects, although not in all; therefore it is the want of ſimilarity that becomes the criterion to judge by, and not the ſimilarity. The parents of the child, who is the ſubject of the following hiſtory, were and are to all appearance healthy people. The child was weakly when born; and the mother having little or no milk, when it was three weeks

old ſhe gave it to a nurſe whoſe milk was then ſeven months old, and was giving ſuck to her own child. The foſter-mother allowed her own to ſuck the right breaſt, while the other ſucked the left.

The nurſe obſerved that the ſkin of the foſter-child began to peel off; but no rawneſs or ſoreneſs took place except about the anus, where it looked as if ſcalded. The ſame kind of peeling took place on the lips, but they did not appear to be ſore, although the people in the country ſaid it was the thruſh. The inner ſurface of the mouth and tongue appeared ſound. In a fortnight after her receiving the child it died, and then ſhe allowed her own child to ſuck both breaſts for three weeks; at the end of which ſhe came to town to nurſe a gentleman's child.

She gave ſuck to this ſecond child; but after being in town about ten or eleven days, ſhe did not feel herſelf perfectly well; which made them ſuppoſe that the new mode of life, confinement in town, and probably better living, might not agree with her, and ſhe went into the country and took the gentleman's child with her. About three or four days after ſhe went to the country, for inſtance, about a fortnight after ſhe took this child, and five weeks after the death of the firſt child, her left nipple, which the firſt nurſed-child had always ſucked, began to be ſore, ſo that ſhe could not let the child ſuck it. This ulcer on the nipple became extremely painful; in a day or two eruptions came out on her face, and ſoon after all over her body, but moſt on her legs and thighs. They continued coming out for about a fortnight, and had at firſt very much the appearance of the eruptions of the ſmallpox, and on the third day of their eruption were attended with fever, univerſal uneaſineſs, and great pain.

Two or three days after the eruption on the ſkin appeared, one of the glands of the armpit began to ſwell, and formed matter, and was opened within a fortnight after its firſt appearance, and healed almoſt directly. Some of the eruptions increaſed faſt and became very broad ſores, nearly of the ſize of a half-crown, eſpecially on the legs and thighs, and were covered with a broad ſcab; many remained ſmall and only appeared like pimples. About a fortnight after the firſt appearance of the eruption, ſome began to die away; and in four weeks more, after this appearance, a foul ulcer attacked the left tonſil.

The

The ſurgeon in the country, from all theſe circumſtances, finding he could not get any ground by the before-mentioned treatment, determined to give her the ſolution of the corroſive ſublimate, of which he gave half a grain in ſolution night and morning; in about a week there ſeemed to be a ſtop put to the ſwelling of the ulcers, and the diſcharge to be ſomewhat leſſened, the ulcer in the throat putting on a better appearance.

It was at this period I firſt ſaw her, which was about ſix weeks after the firſt appearance of the eruption, and a fortnight after the appearance of the ulcer in the tonſil. The eruptions were then very much as before deſcribed; but the ulcer in the tonſil was clean and healing. From the hiſtory of the caſe I did conceive it not to be venereal; I therefore deſired that all medicines might be left off, which medicines could only have been taken for a fortnight at moſt, becauſe it was after the appearance of the ulcer on the tonſil the mercury was given, which was only of a fortnight's ſtanding when I ſaw her. She ſoon after recovered.

After being well for ſome time, ſhe again applied to the ſurgeon in the country, an abſceſs having formed where the complaint firſt began in the breaſt, attended with freſh eruptions on the face.

The abſceſs was opened, and it healed up in a few days, and upon taking ſome cooling phyſic the eruptions diſappeared. She has continued very well ever ſince, without any other bad effect than the total loſs of her nipple. This caſe was certainly underſtood to be venereal.

About five days after the appearance of the eruption on the nurſe, the gentleman's child was taken away and given to a healthy woman of a florid complexion, aged twenty-four years, and who had lain in with her firſt child eleven months when ſhe became wetnurſe to this child. After a few days ſhe obſerved eruptions on the child's head, not unlike thoſe already deſcribed on the firſt nurſe which it had ſucked. Its mouth ſoon after became excoriated, ſo that it ſucked with difficulty. After a ſhort time thoſe eruptions on the head became dry and peeled off, others appeared on the face, knees and feet, but wholly unlike the former, as the firſt maturated, while the latter appeared only cutaneous, peeling off and leaving a circumſcribed ſpot of a light dun colour, which continued increaſing for five weeks. Theſe eruptions continued nearly three months from their commencement

mencement, at which period the child was extremely emaciated; but no particular treatment was indicated, ſo no medicine was exhibited, and in a few weeks after it came to London and got perfectly well.

The ſecond nurſe, a few days after giving ſuck to the child, had blotches appear on her left breaſt, preciſely the ſame with thoſe on the firſt nurſe; with this difference only, that they were fewer in number, and attended with a greater degree of phlegmonous inflammation. They continued, and increaſed in ſize for ſeven or eight days; then the nipple of the ſame breaſt became ulcerated; the ulceration ſpreading ſo much as to endanger the loſs of it; her thighs now became diſeaſed, and afterwards her legs.

She ſuckled this child about twelve weeks. The diſeaſe ſeemed no longer to increaſe, and in twelve or fourteen days after this entirely diſappeared, without her taking any medicine, except a few ounces of the decoction of the bark. The only application to the breaſt was unguentum ſimplex.

The milk at this time became ſo ſmall in quantity, that they were under the neceſſity of providing a third wetnurſe for the child, and the ſecond returned to the country. Her own child being weaned, ſhe had no further occaſion for the milk, and in a few days it wholly diſappeared; but by way of amuſing the child when peeviſh, ſhe allowed it to take the nipple, which had been diſeaſed, in its mouth; the conſequence was, that in a few days this child alſo became diſeaſed in like manner with the former. She now applied to an eminent ſurgeon for aſſiſtance, who, not being acquainted with the hiſtory, ſuppoſed it venereal, and ordered a colourleſs medicine, ſuppoſed, from circumſtances, to be the ſolution of ſublimate, ſixteen grains to half a pint of water; the doſe a table-ſpoonful. She took this medicine as directed, and alſo gave it to her huſband and child; the child a tea-ſpoonful only at a time. While taking this medicine ſhe got well.

The third wetnurſe, like the former, was in a ſhort time affected, but the blotches in this caſe were ſtill fewer in number, the diſeaſe appearing to loſe conſiderably in its power, as each freſh infection became leſs malignant than the former. She got well without taking any medicine.

I. OF DISEASES SUPPOSED TO BE VENEREAL PRODUCED BY TRANSPLANTED TEETH.

Since the operation of tranſplanting teeth has been practiſed in London, ſome caſes have occurred in which the venereal infection has been ſuppoſed to be communicated in this way; and they have been treated accordingly; nor has the method of cure tended to weaken the ſuſpicion: yet when all the circumſtances attending them, both in the mode of catching the diſeaſe, and in the cure when they have been treated as venereal, are conſidered, there is ſomething in them all which is not exactly ſimilar to the uſual appearance of the venereal diſeaſe when caught in the common way; eſpecially too when it is conſidered that ſome of the caſes were not treated as venereal, and yet were cured, and therefore the cures of the others which appeared to be from mercury, are not clear proofs of their having been venereal.*

I believe that I have ſeen moſt, if not all the caſes of this kind which have occurred, and have attended ſome of them. In all of them the time of local affection, after the inſertion of the tooth, has been almoſt regularly a month, which is too long for the venereal to take effect at a medium; and where they have produced conſtitutional ſymptoms, thoſe again have either followed the local too cloſe for the venereal, or too regular as to time. But it may be advanced, that a diſeaſe has been produced probably as bad in its conſequences as the venereal. That a diſeaſe has been formed in this way is certain.

The firſt caſe of this kind which came under my care, was a lady who had one of the bicuſpidati tranſplanted. The tranſplanted tooth faſtened very well. About a month after, ſhe danced till five or ſix o'clock in the

* It is to be remarked here that I do not, in the preſent caſe, lay any ſtreſs at all on my opinion of the lues venerea not having the power of contamination; and I believe we muſt allow if the diſeaſe were venereal, it muſt have been contracted from a lues venerea in the perſon from whom the tooth was taken; for chancres are not common in the mouth, and they would be ſeen on examination. I believe few diſcharges ſimilar to gonorrhœa take place there.

morning,

morning, caught cold, and had a fever in conſequence, which laſted near ſix weeks. In this time ulceration in the gum and jaw took place, though it was then not known. And when ſhe was beginning to recover, it was found that not only the gum and ſocket of this tooth were diſeaſed, but alſo thoſe of the teeth next to it. The two teeth were taken out, and the ſockets of both afterwards exfoliated; but the parts were very backward in healing.

This backwardneſs gave riſe to various opinions, the principal of which was, that it was venereal. In the mean time a riſing appeared upon one of the legs, which was of the indolent node kind; this was alſo ſuſpected by ſome to be venereal, or rather was a corroborating circumſtance of the former opinion; but I gave it as my opinion that it was not. I deſired ſhe might go to the ſea and bathe, which ſhe did, and got perfectly well, both in the jaw and leg, and has continued ſo ever ſince.

The ſecond caſe of this kind I have ſeen was alſo in a young lady: the tranſplanted tooth faſtened extremely well, and continued ſo for about a month, when the gum began to ulcerate, leaving the tooth and ſocket bare. The ulcer continued, and blotches appeared upon the ſkin, and ulcers alſo in the throat. The diſeaſe was treated as venereal, the complaints gave way to this courſe, but they recurred ſeveral times after very ſevere courſes of mercury: however, ſhe at laſt got well.

The only obſervation I can make on this caſe is, that the ſymptoms recurred after continued courſes of mercury, much oftner than is uſual in venereal caſes; and I had my ſuſpicions all along that it was ſcrofulous.

The third caſe was of a gentleman, where the tranſplanted tooth remained, without giving the leaſt diſturbance, for about a month, when the edge of the gum began to ulcerate, and the ulceration went on till the tooth dropped out. Some time after, ſpots appeared almoſt every where on the ſkin; they had not the truly venereal appearance, but were redder, or more tranſparent, and more circumſcribed. He had alſo a tendency to a hectic fever, ſuch as reſtleſsneſs, want of ſleep, loſs of appetite, and headach. After trying ſeveral things, and not finding relief, he was put under a courſe of mercury, and all diſeaſe diſappeared according to the common courſe of the cure of the venereal diſeaſe, and we thought him well; but ſome time after, the ſame appearances returned, with the addition of ſwelling

ling in the bones of the metacarpus. He was now put under another courſe of mercury more ſevere than the former, and in the uſual time all the ſymptoms again diſappeared. Several months after, the ſame eruptions came out again, but not in ſo great a degree as before, and without any other attendant ſymptoms. He a third time took mercury, but it was only ten grains of corroſive ſublimate in the whole; and he got quite well. The time between his firſt taking mercury, and his being cured, was a ſpace of three years.

Query: Could this caſe be venereal? The two firſt courſes of mercury removing the eruptions, would ſeem to prove it was; but the third courſe alſo removing them, which conſiſted of only ten grains of corroſive ſublimate, would ſeem to prove that it could not be venereal; for if it had, the appearances which returned after the ſecond courſe, in which a conſiderable quantity of mercury had been given, would not have yielded to ten grains.

The fourth caſe was that of a young lady who had a tooth tranſplanted, and about the ſame diſtance of time after it as mentioned in the former caſes, the gum began to ulcerate, and the ulceration was making conſiderable progreſs. The ſurgeon who was firſt conſulted deſired mercury to be given immediately. I was afterwards deſired to ſee her, and adviſed that mercury ſhould not be had recourſe to, that we might aſcertain the nature of the caſe; for if ſhe took mercury and got well, it would be adding one more to the number of the ſuppoſed venereal caſes ariſing from ſuch a cauſe. I recommended drawing the tooth, that we might ſee what effects would be produced by the removal of the firſt cauſe.

The tooth was drawn, and the gum healed up as faſt as any common ulcer, and has ever ſince continued well.

This caſe requires no comment. I may, however, be allowed to obſerve, that if the lady had gone through a courſe of mercury, ſhe would have, in all probability, alſo got well; for the tooth, in the time neceſſary for compleating the courſe of mercury, would have dropped out; and if this had really happened, we need not heſitate in affirming, that it would have been conſidered as venereal.

The fifth caſe was that of a young lady, eighteen years of age, who had one of the inciſores tranſplanted, which faſtened very well; but ſix or ſeven

weeks after the operation, an ulceration of the gum took place, the tooth was immediately ordered to be removed, and the bark was given without any other medicine, and ſhe got well in a few weeks.

The ſixth caſe was that of a gentleman, aged twenty-three, a native of one of the Weſt India iſlands, who had the two front inciſores tranſplanted; and about the ſame time after the operation, as in the former caſes, an ulceration of the gums took place, which increaſed to a very great degree, and the edges of the gum ſloughed off. An eminent ſurgeon was conſulted, who ordered the bark, and the patient, without taking any other medicine, got well, in nearly the ſame time as the ladies, in caſes four and five, who had the teeth taken out. The gums recovered themſelves perfectly, but were conſiderably ſhorter.

If we take ſome of the above caſes, and conſider them as they at firſt appeared, we ſhall almoſt pronounce them to have been venereal. If we take the others, we ſhall pronounce them abſolutely not to be venereal; and if we conſider every circumſtance relating to thoſe probably venereal, we ſhall, as far as reaſoning goes, conclude that they were not venereal. The firſt caſe that appeared at the time to be venereal, is the ſecond of thoſe before related; but as I did not attend the lady through the whole of the cure, I can ſay leſs upon it; ſhe certainly had the ſymptoms recur oftner than they do in venereal caſes in common, where the diſeaſe is attended with no ambiguity, and took more than the uſual quantity of mercury; there is therefore in this caſe ſomething not clearly underſtood, becauſe it does not exactly agree with venereal caſes in general in all its parts.

The fourth caſe was ſimilar in its recurring, and in the quantity of mercury that appeared to be neceſſary to remove the ſymptoms.

The moſt ſerious effects of tranſplanting a tooth happened to a young lady, and are related in the Medical Tranſactions, by the late Sir William Watſon.

The dentiſt being alarmed at the firſt appearance, deſired me to viſit her upon his own account. The edge of the gum had juſt then begun to ulcerate. As I did not know well what was beſt to be done, I deſired him to make a ſtrong ſolution of corroſive ſublimate, and let the mouth be often waſhed with it, and alſo to apply ſome lint, ſoaked in it, to the part; but as this

this did not ſtop its progreſs, ſhe applied to Sir William Watſon, to whoſe account of the caſe I muſt refer the reader, and from that account I muſt take my materials to reaſon upon. However, I may remark, that the caſe appears to have been ſuppoſed at laſt to have been venereal, whatever might have been the firſt opinion, and for the two following reaſons; firſt, from the mode of catching the diſeaſe being poſſible; and ſecondly, from its not giving way to medicines which are of no ſervice in the venereal diſeaſe; and this opinion appears to have been confirmed by the diſeaſe giving way to mercury. But the caſe itſelf, abſtracted from the mode of catching it, and even the mode of cure, does not perfectly agree with the common attending circumſtances of the venereal; nor has that attention been paid to the neceſſary circumſtances ſufficient to determine it to be venereal.

The progreſs of the ulceration in the mouth, which was the firſt ſymptom, was by much too rapid for a venereal ulcer in common; for it muſt be conſidered, if venereal, ſimply as a chancre, or local affection.

Now let us trace the progreſs of the diſeaſe into the conſtitution. "About this time," viz. when the local diſeaſe was making ſuch rapid progreſs, "blotches appeared in her face, neck, and various parts of the body; ſeveral of theſe became ulcerated painful ſores."* Now this date of the conſtitutional affections following the local, is by much too ſoon to be venereal; we know if a lues venerea ariſes either from a gonorrhœa or chancre, it does not appear in common till about ſix weeks, often much later, but ſeldom ſooner. I do not count much upon the circumſtance of there being no ſwelling of the lymphatic glands of the neck, forming buboes, as that is not a conſtant ſymptom attending the venereal matter getting into the circulation, although it ſhould be allowed to have ſome weight, eſpecially where other circumſtances do not perfectly agree. The appearances from the conſtitution, when they did take place, were much more violent and rapid in their progreſs than any venereal blotches I ever ſaw: we know in the lues venerea that they are months before they arrive at the ſtage of ſcabs; alſo the pain attending thoſe ſores did not in the leaſt correſpond with the lues venerea. Venereal blotches hardly give any ſenſation, or at

* Medical Tranſactions, vol. 3, page 328.

leaſt very little; but after all, mercury cured this diſeaſe, whatever it was: twenty-eight grains of calomel, made into fourteen pills, was taken, probably, in ten or twelve days; for it was directed ſhe ſhould take one or two each day, as the bowels would allow; but although tinctura thebäica was given, they purged ſo much as made it neceſſary to give no more in this way; but although ſo little mercury was taken, and had alſo run off conſiderably by the bowels, yet "The ulceration of her mouth and cheeks did not ſpread, but were leſs painful and of a milder appearance; the blotches in her face and body grew paler, and ſuch of them as had ulcerated healed apace and no new ones appeared. Unguent cœruleum fortius" was therefore directed "to be well rubbed into her legs and thighs twice a day, in ſmall doſes," leſt it ſhould be determined to the bowels. "In about ten or twelve days her griping and purging returned with violence, the ointment was therefore diſcontinued; at this time the blotches were all gone; the ulceration in her face and body were completely healed, and thoſe of her mouth nearly ſo."

The only remark I have to make on the cure is, that the quantity of mercury was not ſufficient to cure chancres on the penis, making ſuch rapid progreſs as thoſe did in her mouth; nor could the ſame quantity of mercury cure venereal ſores on the ſkin, which had made ſuch rapid progreſs as they did in this caſe; and if we take in the effect this had upon her health, with the termination of the whole, I think we ſhould pronounce it not venereal; for the ſpecific circumſtances, if it was venereal, were juſt as uncommon as the mode of catching it.

Many of theſe caſes, ſuſpected of being venereal, I have ſeen occaſionally; and although the patients recovered while under a courſe of mercury, yet on account of the want of attention in the practitioners to the very circumſtances that would decide the diſeaſe to be either venereal or not, I paſs them over unnoticed.

After having conſidered the caſes themſelves of thoſe who had the teeth tranſplanted, let us alſo conſider the perſons from whom the teeth were taken; for I cannot help thinking that this will throw ſome light upon the ſubject. Let me ſuppoſe that the young girls from whom the teeth were taken really had the lues venerea, and that the teeth were of courſe alſo infected,

fected, which is a ſuppoſition moſt unfavourable to my real opinion, it appears to me, that even in this caſe there can be no difference between the gums of the girl from whom the tooth was taken, and the gums of the perſon who received it: if the ulceration took place in the laſt from contamination, would not the ſocket in the girl from whom the tooth was taken likewiſe have ulcerated? But this did not happen in any of them. I have here ſuppoſed the teeth capable of being contaminated; although I believe we have never yet ſeen them have this diſeaſe primarily, but only in conſequence of its breaking out ſomewhere elſe, in the mouth, throat, or noſe, and ſpreading to them; but ſtill, if they are capable of having the diſeaſe, and communicating it to others, it becomes very extraordinary that thoſe people ſhould have hit upon the few teeth that probably were ever ſo contaminated.

When we conſider that the girls from whom the teeth were taken, had not the leaſt appearance of diſeaſe at the time, and had none when the diſeaſe broke out in the perſon who received the teeth, it becomes ſtrange that it ſhould break out in the receivers, and not in the giver.

It is alſo ſingular, that an ambiguity ſhould follow this diſeaſe in all its ſtages; in the mode of its being caught, the appearance, and the cure.

Let us ſum up all the arguments in favour of the diſeaſe not being venereal. Firſt; two patients, whoſe caſes were ſimilar to the others in their origin, recovered without medicine.

Secondly; they who ſeemed to be cured by mercury, had not a treatment exactly ſimilar to thoſe who were indiſputably poxed.

Thirdly; I conſider it as impoſſible for parts to have the power of contaminating, which are not themſelves diſeaſed.

Fourthly; the parts contaminating were never known to have been contaminated themſelves.

But it muſt be nearly the ſame thing to thoſe who want to have teeth tranſplanted, whether my reaſoning is juſt or not; for a diſeaſe in conſequence of the operation moſt certainly has taken place: and in ſome caſes this has been worſe, or cured with more difficulty, than the lues venerea in common; and whatever the diſeaſe may be, I yet know of no mode of prevention,

prevention, except the drawing of the tooth early, and that has been tried in one caſe only, and in that caſe was ſucceſsful.

From this account many may be deterred from having this operation performed; in that light no evil can ariſe, except the mortification which ariſes from a reflection, that no relief is to be had in caſes of bad teeth: but it is to be remembered, that this is a publication of all the unſucceſsful caſes, which is the very reverſe of what is generally practiſed in medical books; and they are mentioned upon no other principle than that the diſeaſe, when it happens, may not be improperly managed.

It may be aſked, what is this diſeaſe? There is more difficulty in anſwering what it is, than what it is not. I ſhould ſay that a ſound tooth tranſplanted may occaſion ſuch an irritation as ſhall produce a ſpecies of diſeaſe which may be followed by the local complaints above-mentioned.

I cannot conclude without intimating, that undeſcribed diſeaſes, reſembling the venereal, are very numerous; and that what I have ſaid is rather to be conſidered as hints for others to proſecute this inquiry further, than as a complete account of the ſubject.

THE END.

Fig. 1.

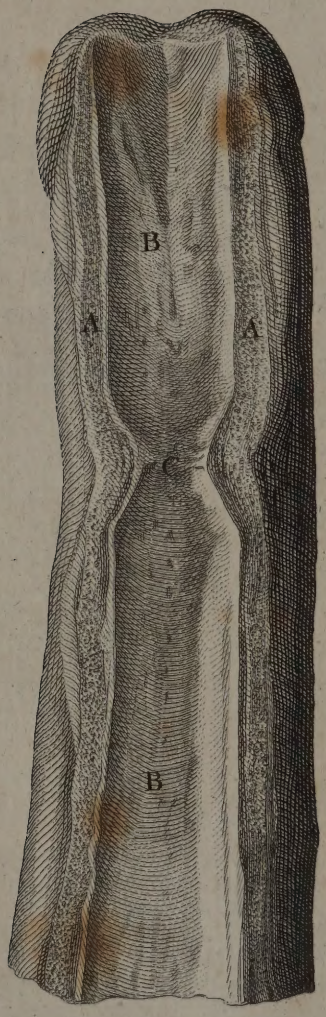


Fig. 2.

Wm Bell del.

Wm Sharp sc.

EXPLANATION

OF THE

PLATES.

PLATE I.

FIGURE I.

THE penis, ſlit open, ſhowing a ſtricture in the urethra, about two inches from the glans. The ſtricture is but ſlight.

AA. The cut ſurface of the corpus ſpongioſum urethræ.
BB. The canal of the urethra, in which may be obſerved the orifices of the lacunæ.
C. The ſtricture.

FIGURE II.

THE penis ſlit open for about three inches, to ſhow the lacunæ, which become occaſionally an obſtruction to the paſſage of the bougie.

AA. The corpus ſpongioſum urethræ.
BB. The internal ſurface of the canal of the urethra, pointing to the orifice of two of the lacunæ.
C. A briſtle introduced into a lacuna.
D. The end of the bougie introduced into the remaining part of the urethra.

Wm Bell del.
Wm Sharp sc.

PLATE II.

THE urethra opened in two different places, one before the ſtricture, the other behind: the one before, is through the body of the penis; the other behind, is upon the anterior ſurface of the membraneous part, and a bougie paſſes from the one opening to the other.

AA. The crura penis and bulbous part of the urethra all blended together by inflammation and ſuppuration, which has taken place in many parts.

BB. The proſtate gland in a diſeaſed ſtate.

CC. The cut edges of the bladder.

D. The urethra behind the ſtricture very much enlarged; irregular on the ſurface in conſequence of ulceration.

EE. The cut ſurface of the corpus cavernoſum penis.

FF. The cut ſurface of the corpus ſpongioſum urethræ.

GG. The bougie paſſing from the ſound to the unſound part of the urethra.

H. A ſmall bougie in the new paſſage.

Fig. 1.

Fig. 2.

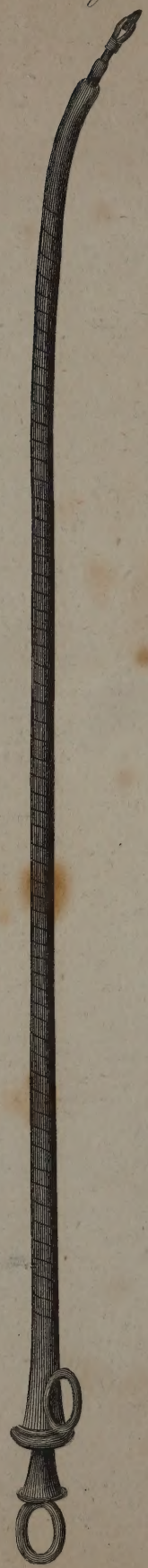
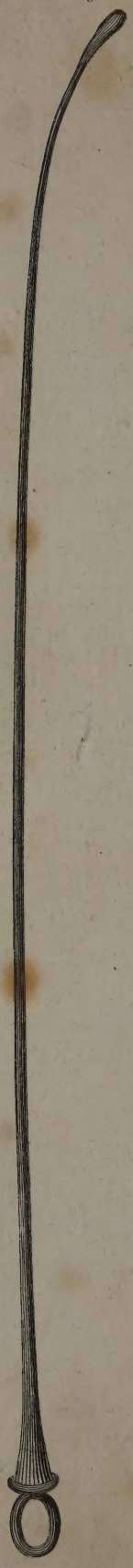


Fig. 3.



Wm Bell del.

Wm Sharp sc.

PLATE III.

TWO canulas, for applying cauſtic to ſtrictures in the urethra.

FIGURE I.

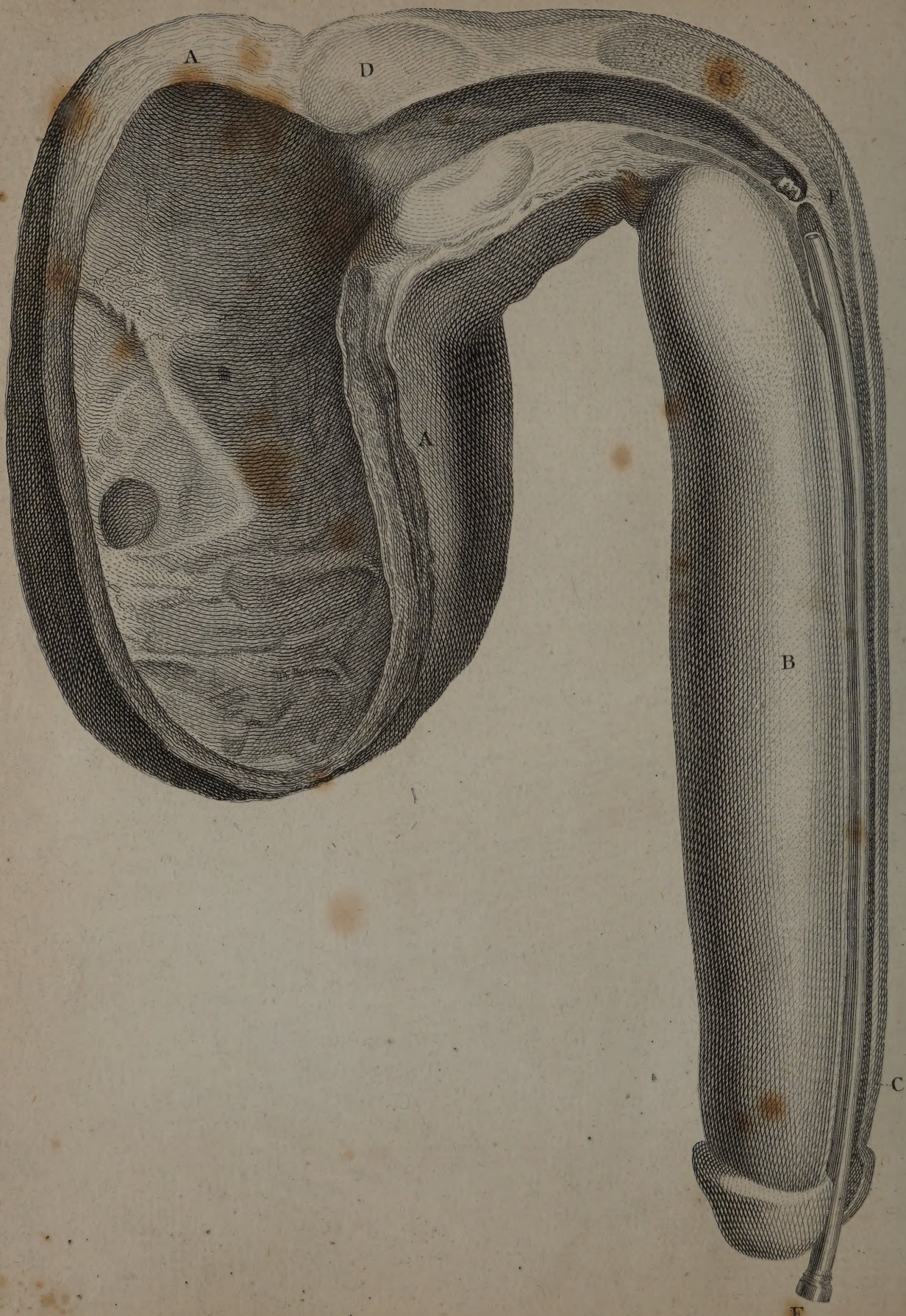
A ſtraight ſilver canula, with the plug projecting beyond the termination of the canula, making a rounded end; at the other end of the wire is a ſmall portcrayon, in which is repreſented a piece of cauſtic.

FIGURE II.

A flexible canula for applying the cauſtic to ſtrictures in the bend of the urethra. The wire, with the ſmall portcrayon, is puſhed out beyond its end.

FIGURE III.

A piece of ſilver-wire, with the plug at the end, to be introduced into the canula, as in Figure I.



Wm Bell del.
Wm Sharp sc.

PLATE IV.

THE bladder and penis of a perſon who died of a mortification of the bladder in conſequence of a ſtricture and ſtone in the urethra. In this plate not only the ſtricture is repreſented, but the thickened coats and faſciculated inner ſurface of the bladder; as alſo the ſmall ſtone which acted as a valve, or plug; beſides which, a canula is introduced from the glans down to the ſtricture, ſhowing the practicability of deſtroying it with cauſtic.

AA. The bladder, cut open, ſhowing its coats a little thickened, and its inner ſurface faſciculated.

B. The body of the penis.

CC. The corpus ſpongioſum urethræ, cut open through its whole length, expoſing the urethra.

D. The proſtate gland divided.

E. A ſilver canula introduced into the urethra, through which the cauſtic is paſſed on to the ſtricture.

F. Points out the ſtricture, with the ſtone laying above, ſo as entirely to prevent the paſſage of urine.

Wm Bell del.

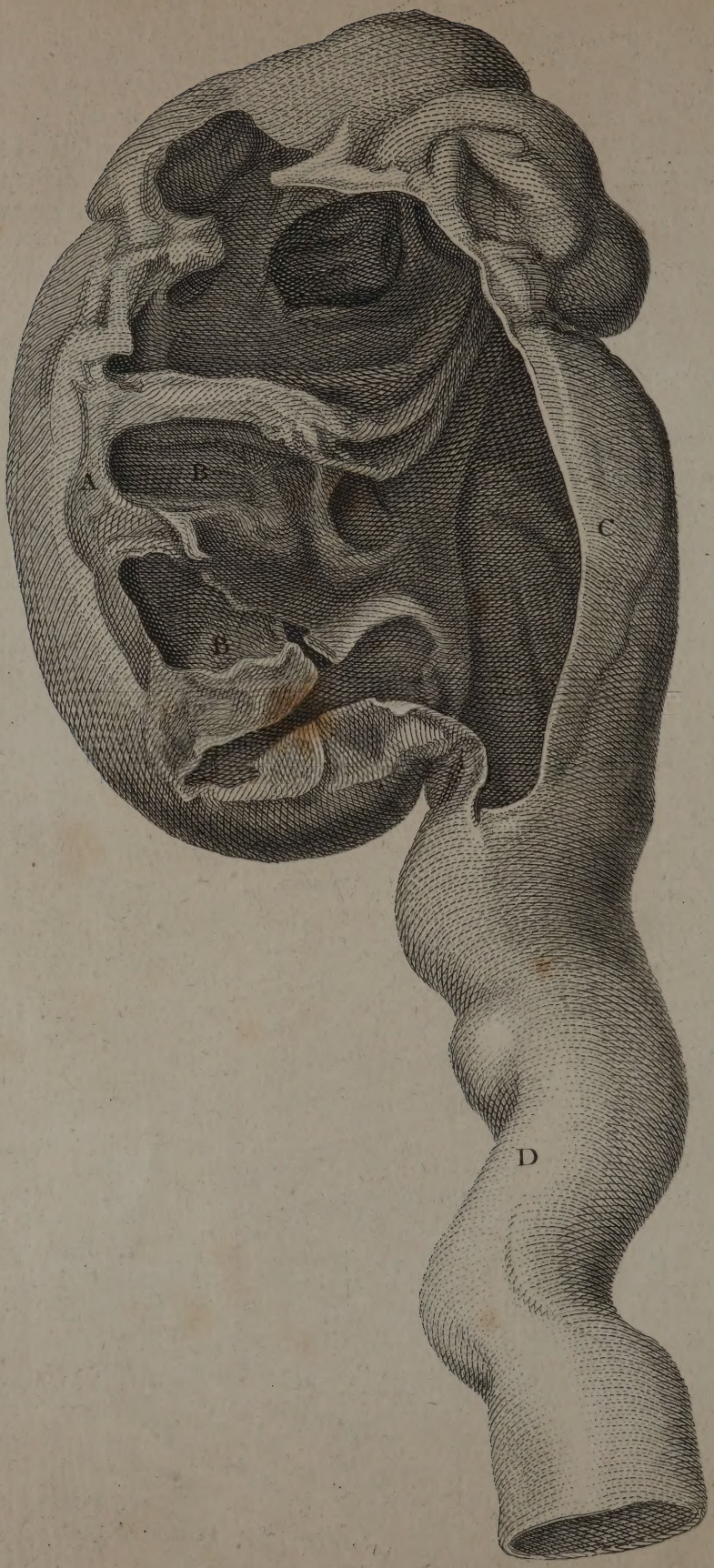
Wm Sharp sc.

PLATE V.

AN enlarged proſtate gland, particularly the valvular proceſs, which has increaſed inwards, into the bladder, in form of a tumor, in conſequence of which the water paſſed with difficulty, which became the cauſe of the increaſed thickneſs of the bladder.

A. The proſtate gland.
B. The projecting part paſſing into the cavity of the bladder.
CC. A briſtle in the urethra, to ſhow it is above this tumor.
D. The cut edge of the bladder, which ſhows its increaſed thickneſs.*

* The preparation, from which this drawing was made, I was favoured with by Mr. Gunning, and which is in his poſſeſſion.



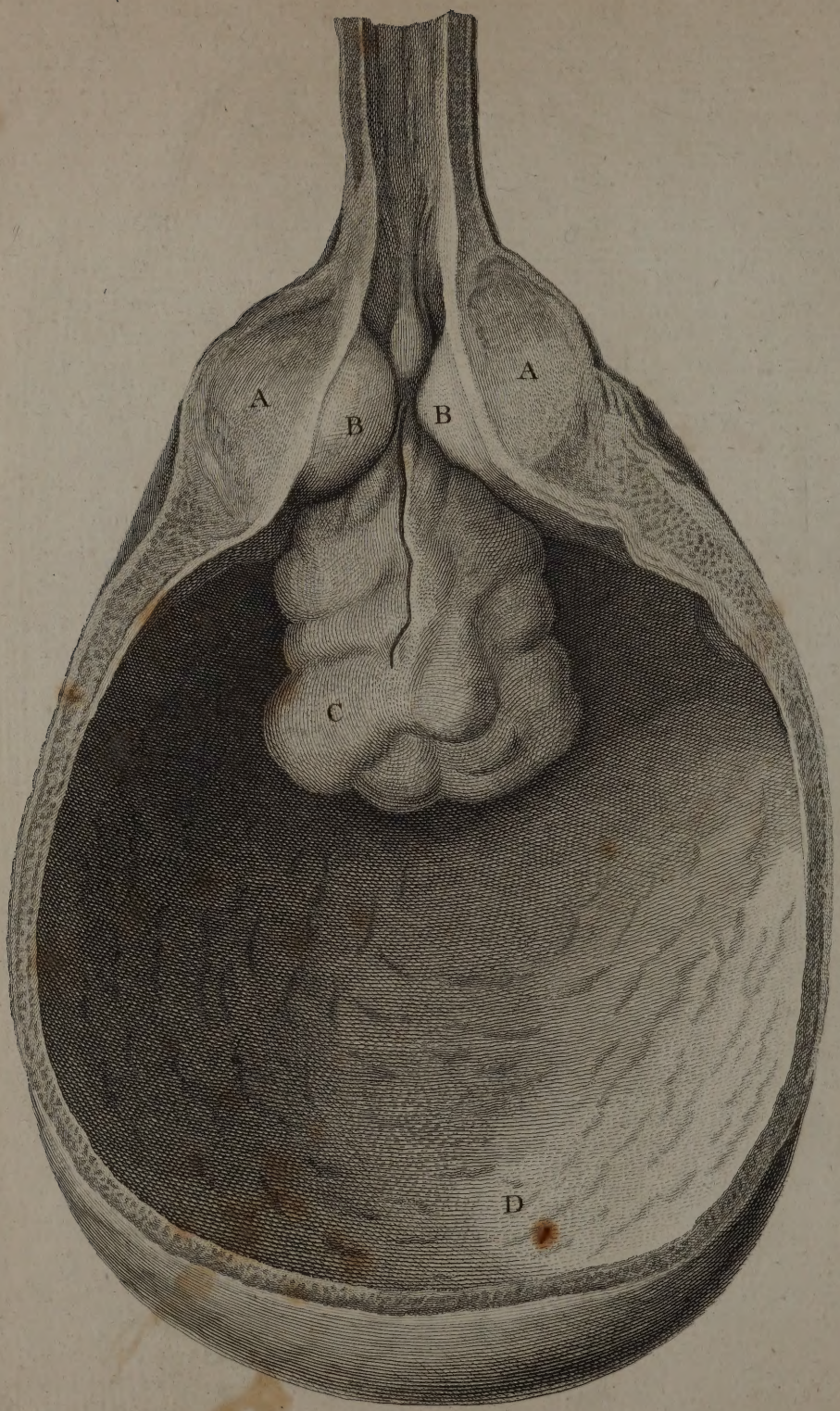
Wm Bell del.

Wm Skelton sc.

PLATE VI.

A Kidney, whoſe ureter, pelvis, and infundibula, are very conſiderably enlarged in conſequence of a ſtricture in the urethra.

A. The ſubſtance of the kidney, which is become very thin.
BB. The infundibula much enlarged.
C. The pelvis very much enlarged.
D. The ureter increaſed more than ten times its natural ſize.



Willm Bell Del.

Jas Roberts Sc

PLATE VII.

THE valvular part of the bladder ſo increaſed as to form a conſiderable tumor, projecting into the cavity of the bladder. The proſtate is alſo enlarged. This tumor had been the occaſion of ſeveral ſevere ſuppreſſions of urine, and had often been the cauſe of a failure in drawing off the water with the catheter, by that inſtrument, moſt probably, paſſing into its ſubſtance ſo deep as to hinder the urine entering its openings. The dark line, paſſing along the tumor from the urethra, was probably made by this means, but now collapſed.

AA. The cut ſurface of the proſtate gland.
BB. The inner ſides of the proſtate gland projecting inwards.
C. The tumor.
D. The cavity of the bladder.

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